INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.state.in.us/idem

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

Owens Corning
128 W. Eighth Street
Brookville, Indiana 47012

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F047-15014-00005	
Issued by:Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:November 12, 2002 Expiration Date:November 12, 2007

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary an asphalt felt, coatings, and roofing products manufacturing source.

Authorized Individual:	Martin D. Bever, Plant Leader
Source Address:	128 W. Eighth Street, Brookville, Indiana 47012
Mailing Address:	128 W. Eighth Street, Brookville, Indiana 47012
SIC Code:	2952
General Source Phone Number:	(765) 647-4131
County Location:	Franklin
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) four (4) fuel combustion emission units (EU) consisting of:

(1) one (1) natural gas fired asphalt preheater #1 identified as EU 1.1, installed in 1991, rated at 2.5 million British thermal units (MMBtu) per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 65;

(2) one (1) natural gas fired asphalt preheater #2 (asphalt saturant preheater) identified as EU 1.2, installed in 1996, rated at 1.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 66;

(3) one (1) natural gas fired filler heater (asphalt saturant preheater) identified as EU 1.3, installed in 1979, rated at 2.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 15; and

(4) one (1) natural gas fired hot oil heater identified as EU 1.4, installed in 1982, rated at 2.1 MMBtu per hour and using No. 2 fuel oil as a backup, exhausting at one (1) stack identified as 67;

(b) four (4) liquid storage tanks, consisting of:

(1) one (1) 40,000 gallon capacity asphalt tank #1 identified as EU 2.1, installed in 1990, rated at 200 gallons per minute, with a fiber filter bed to control particulate matter, exhausting at one (1) stack identified as 71;

(2) one (1) 10,000 gallon capacity adhesive tank #7 identified as EU 2.2, placed into service during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) unlabeled stack; and

(3) one (1) 10,000 gallon capacity adhesive tank #7A identified as EU 2.3, installed during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) unlabeled stack;

(4) one (1) 30,000 gallon capacity asphalt tank #2 identified as EU 3.1, installed in 1947, rated at 200 gallons per minute, exhausting at one (1) stack identified as 72;

(c) mineral storage facilities utilizing pneumatic conveying and controlled by baghouses, consisting of:

(1) one (1) filler silo #1 identified as EU 4.1, installed in 1979, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing “Smartimers” for controlling cleaning cycle frequency, each exhausting at one (1) individual stack identified as 74 and 75;

(2) one (1) filler silo #2 identified as EU 4.2, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 77;

(3) one (1) filler silo #4 identified as EU 4.3, installed in 1993, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing “Smartimers” for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 80 and 81;

(4) one (1) parting agent silo #3 identified as EU 4.4, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 79;

(5) one (1) parting agent use bin identified as EU 4.5, installed in 1991, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 14A;

(6) one (1) filler upper surge hopper identified as EU 4.7, installed in 1979, rated at 54 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing “Smartimers” for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 15A and 15B;

(7) one (1) filler lower surge hopper identified as EU 4.8, installed in 1979, rated at

27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing "Smartimers" for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 15C;

(8) one (1) surfacing material silo #7 identified as EU 4.10, installed in 1996, rated at 30 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse, exhausting at one (1) stack; and

(9) one (1) surfacing material receiving bin rated at 30 thousand cubic feet per hour and identified as EU 4.11, installed in 1996, with particulate matter controlled by one (1) baghouse common to this facility and EU 7.1, with the baghouse equipped with "Smartimers" for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14.

(d) one (1) asphalt filler mixer identified as EU 5.1, rated at 300 gallons per minute, utilizing a screw conveyor for mineral filling and gravity flow for tank emptying, as an enclosed facility without an exhaust stack;

(e) five (5) facilities with a common production rate limit, consisting of:

(1) six (6) surfacing material silos #1 - #6 collectively identified as EU 4.9, installed after November 1980, all exhausting at one (1) stack identified as 20;

(2) one (1) asphalt coater (coating rolls) and coating surge tank identified as EU 6.1, installed in 1982, with particulate matter controlled by one (1) fiber bed filter, exhausting at one (1) stack identified as 36;

(3) one (1) material surfacing applicator (material surfacing area) identified as EU 7.1, rated at 471 thousand cubic feet per hour with particulate matter controlled by one (1) baghouse common to this facility and EU 4.11, with the baghouse equipped with "Smartimers" for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14;

(4) one (1) cooling section identified as EU 7.2, installed in 1989, exhausting at two (2) stacks identified as 41 and 42; and

(5) fugitive emissions building ventilators, identified as ID# 93.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British Thermal Units per hour. This includes one (1) 0.58 Million British Thermal Units per hour rated furnace, sixteen (16) 0.075 Million British Thermal Units per hour individually rated furnaces, and one (1) 0.25 Million British Thermal Units per hour rated boiler installed after 1983;

(b) propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British Thermal Units per hour;

(c) equipment powered by internal combustion engines of capacity equal to or less than 500,000 British Thermal Units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British Thermal Units per hour;

(d) combustion source flame safety purging on startup;

(e) the following VOC and HAP storage containers:

(1) storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons;

(2) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(f) machining where an aqueous cutting coolant continuously floods the machining interface;

(g) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including two cold cleaning parts washers installed in 2000;

(h) cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kilopascal (kPa); 15 millimeter of mercury; or 0.3 pounds per square inch measured at 38 degrees C (100 °F) or;

(2) having a vapor pressure equal to or less than 0.7 kilopascal (kPa); 5 millimeter of mercury; or 0.1 pounds per square inch measured at 20 °C (68 °F);

the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;

(i) the following equipment related to manufacturing activities not resulting in the emission of hazardous air pollutants (HAPs); brazing equipment, cutting torches, soldering equipment welding equipment, including the total use of less than 625 pounds of welding consumables per day and less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness of less is cut.;

(j) closed loop heating and cooling systems.

(k) noncontact cooling tower systems with forced and induced draft not regulated under NESHAP;

(l) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(m) process vessel degassing and cleaning to prepare for internal repairs;

(n) paved and unpaved roads and parking lots with public access, identified as ID# 91;

(o) blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower;

(p) on-site fire and emergency response training approved by the department;

(q) a laboratory as defined in 326 IAC 2-7-1(20)(C);

(r) additional activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day and VOC emissions below three (3) pounds per hour or fifteen (15) pounds per day:

(1) one (1) granule and sand reclaim system, identified as EU 6.2, with a maximum capacity of 4 tons granules and sand per day, exhausting through one stack identified as 71A. The potential emissions from this activity are calculated to be 0.0136 pounds per day.

(2) one (1) parting agent recycle system rated at 27 thousand cubic feet per hour and identified as EU 4.6;

(3) VOC emissions from pumps, valves, flanges, etc., identified as ID# 92;

(4) fugitive particulate matter emissions from material unloading, identified as ID# 94;

(5) ink jet printer; and

(6) application of adhesive to asphalt coated product, using up to one (1) ton per hour adhesive, including:

(A) adhesive use tank #1;

(B) adhesive melt tank #1;

(C) adhesive melt tank #2;

(D) adhesive use tank #2;

(E) laminating adhesive use tank;

(F) laminating adhesive melt tank;

(G) adhesive applicator pan #1;

(H) adhesive applicator pan #2; and

(I) laminating adhesive applicator pan.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

(c) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

(b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ, upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
Four (4) fuel combustion emission units (EU) consisting of:

(1) one (1) natural gas fired asphalt preheater #1 identified as EU 1.1, installed in 1991, rated at 2.5 million British thermal units (MMBtu) per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 65;

(2) one (1) natural gas fired asphalt preheater #2 (asphalt saturant preheater) identified as EU 1.2, installed in 1996, rated at 1.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 66;

(3) one (1) natural gas fired filler heater (asphalt saturant preheater) identified as EU 1.3, installed in 1979, rated at 2.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 15; and

(4) one (1) natural gas fired hot oil heater identified as EU 1.4, installed in 1982, rated at 2.1 MMBtu per hour and using No. 2 fuel oil as a backup, exhausting at one (1) stack identified as 67.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Fuel Usage Limitation [326 IAC 2-8-4]

The total input of No. 2 fuel oil to the four (4) combustion facilities EU 1.1, EU 1.2, EU 1.3 and EU 1.4 is limited to 216,240 gallons per twelve (12) consecutive month period with compliance determined at the end of each month. This usage limit, including the potential to emit of the other significant and insignificant activities, is required to limit the source-wide potential to emit of VOC and PM-10 to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 (Part 70) are not applicable to the source.

D.1.2 Sulfur Dioxide (SO_2) [326 IAC 7-1.1]

The sulfur content of the No. 2 fuel oil combusted at facilities EU 1.1, EU 1.2, EU1.3 and EU 1.4 shall not exceed 0.5%. Therefore, the requirements pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) shall not apply to facilities EU 1.1, EU 1.2, EU1.3 and EU 1.4. Any change or modification which may increase No. 2 fuel oil sulfur content such that the potential to emit SO_2 equals or exceeds twenty-five (25) tons per year or ten (10) pounds per hour at any facility shall require OAQ prior approval before such change can take place.

D.1.3 Particulate [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the hot oil heater (EU 1.4) shall be limited to 0.6 pounds per MMBtu heat input determined as the lesser of the value *Pt* (i.e., 7.28 lb/MMBtu) computed with the following formula,

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where: Pt = emission rate limit (lb PM / MMBtu)
C = maximum ground-level concentration (50 micrograms per cubic meter)
a = plume rise factor (0.67 for Q less than 1,000 MMBtu/hr)
h = stack height (29 feet)
Q = total source operating capacity rating (2.1 MMBtu/hr)
N = number of stacks in fuel burning operation (1)

or six-tenths (0.6) pounds per MMBtu heat input for facilities with a heat input rate (Q) of less than 250 MMBtu per hour and which began operation after June 8, 1972.

Compliance Determination Requirements

D.1.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.2 shall be determined utilizing one of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) percent sulfur by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific compliance monitoring requirements applicable to these facilities.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.5 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limits established in Conditions D.1.1 and D.1.2.

(1) Calendar dates covered in the compliance determination period;

(2) Actual No. 2 oil usage per month since the last compliance determination period;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications.

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
Four (4) liquid storage tanks, consisting of:

(1) one (1) 40,000 gallon capacity asphalt tank #1 identified as EU 2.1, installed in 1990, rated at 200 gallons per minute, with a fiber filter bed to control particulate matter, exhausting at one (1) stack identified as 71;

(2) one (1) 10,000 gallon capacity adhesive tank #7 identified as EU 2.2, placed into service during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) unlabeled stack; and

(3) one (1) 10,000 gallon capacity adhesive tank #7A identified as EU 2.3, installed during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) unlabeled stack;

(4) one (1) 30,000 gallon capacity asphalt tank #2 identified as EU 3.1, installed in 1947, rated at 200 gallons per minute, exhausting at one (1) stack identified as 72;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to asphalt storage tank #1 (EU 2.1), except when otherwise specified in 40 CFR Part 60, Subpart UU.

D.2.2 Visible Emissions [326 IAC 12][40 CFR 60, Subpart UU]

Pursuant to the New Source Performance Standards, 326 IAC 12 (40 CFR Part 60.472, Subpart UU), the source shall comply as follows for asphalt storage tank #1 (EU 2.1):

(a) Visible emissions shall not exceed zero (0) percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device (i.e., fiber bed filter) shall not be bypassed during this 15-minute period.

(b) If the emissions from asphalt storage tank #1 are ducted to a control device for the saturator (i.e., EU 6.1), the combined emissions shall meet the emission limit contained in Condition D.5.2 during the time the saturator control device is operating. At any other time the asphalt storage tank must meet the opacity limit specified in paragraph (a).

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

(a) The total combined throughput to asphalt tanks #1 (EU 2.1) and #2 (EU 3.1) is limited to 28,502,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The throughput to each of adhesive tanks #7 (EU 2.2) and #7A (EU 2.3) is limited to 1,295,640 gallons per twelve (12) consecutive months with compliance determined at the end of each month.

Based on the U.S. EPA AP-42 document, Section 7, these usage limits are equivalent to limiting the potential to emit of VOC from the four (4) facilities to 5.82 tons per twelve (12) consecutive month period, based on 8,760 hours of operation per 12 consecutive month period. This usage limit, including the potential to emit for the other significant and insignificant activities, is required to limit the source-wide potential to emit of VOC to less than 100 tons per year.

Compliance with this condition shall make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source. Compliance with this condition shall also make the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD), not applicable to the source.

D.2.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for facilities EU 2.1, EU 2.2, EU 2.3 and EU 3.1 and the relevant control devices.

Compliance Determination Requirements

D.2.5 Particulate Matter (PM and PM-10)

In order to comply with D.2.2, the fiber bed filter for PM and PM-10 control shall be in operation and control emissions from EU 2.1 at all times that the storage tank is in operation and storing asphalt.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.6 Visible Emissions Notations

(a) Visible emission notations of the EU 2.1 fiber bed filter stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere.

(b) Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record “yes” or “no” whether emissions are observed. The “yes” means visible emissions are observed and the “no” means that visible emissions are not observed. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the fiber bed filters for EU 2.1, EU 2.2 and EU 2.3 at least once per shift when each storage tank is in operation. When for any one reading, the pressure drop across any of the fiber bed filters is outside the normal range of 0.25 and 10 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan-Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.8 Fiber Bed Filter Inspections

An inspection shall be performed within the last month of each calender quarter of the respective fiber bed filters controlling EU 2.1, EU 2.2, and EU 2.3. All defective filters shall be replaced.

D.2.9 Broken or Failed Filter Detection

For the fiber bed filters, in the event that filter failure has been observed, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.10 Record Keeping Requirements [326 IAC 12][40 CFR 60.110b, Subpart Kb]

Pursuant to New Source Performance Standard (NSPS), 326 IAC 12 and 40 CFR Part 60.116 Subpart Kb, the Permittee shall maintain accessible records for the life of asphalt storage tank #1 (EU 2.1). The records shall include:

(a) The date the tank was manufactured,

(b) The dimensions of the tank,

(c) An analysis showing the capacity of the tank, and

(d) The vapor pressure of the volatile organic liquid stored, indicating the maximum true vapor pressure is less than 15 kPa at the temperature stored.

D.2.11 Record Keeping Requirements

(a) To document compliance with Condition D.2.3, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.2.3:

(1) Calendar dates covered in the compliance determination period;

(2) Total combined throughput to asphalt tanks #1 (EU 2.1) and #2 (EU 3.1) per month since the last compliance determination period; and

(3) The throughput to each of adhesive tanks #7 (EU 2.2) and #7A (EU 2.3) per month since the last compliance determination period.

(b) To document compliance with Conditions D.2.2(a) and D.2.6, the Permittee shall maintain records of visible emission notations of the EU 2.1 fiber bed filter stack exhaust once per shift.

(b) To document compliance with Condition D.2.7, the Permittee shall maintain the once-per-shift records of the total static pressure drop during normal operation.

(c) To document compliance with Condition D.2.8, the Permittee shall maintain records of the results of the inspections required under Condition D.2.8.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.12 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
mineral storage facilities utilizing pneumatic conveying and controlled by baghouses, consisting of:

(1) one (1) filler silo #1 identified as EU 4.1, installed in 1979, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing “Smartimers” for controlling cleaning cycle frequency, each exhausting at one (1) individual stack identified as 74 and 75;

(2) one (1) filler silo #2 identified as EU 4.2, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 77;

(3) one (1) filler silo #4 identified as EU 4.3, installed in 1993, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing “Smartimers” for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 80 and 81;

(4) one (1) parting agent silo #3 identified as EU 4.4, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 79;

(5) one (1) parting agent use bin identified as EU 4.5, installed in 1991, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 14A;

(6) one (1) filler upper surge hopper identified as EU 4.7, installed in 1979, rated at 54 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing “Smartimers” for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 15A and 15B;

(7) one (1) filler lower surge hopper identified as EU 4.8, installed in 1979, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 15C;

(8) one (1) surfacing material silo #7 identified as EU 4.10, installed in 1996, rated at 30 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse, exhausting at one (1) stack; and

(9) one (1) surfacing material receiving bin rated at 30 thousand cubic feet per hour and identified as EU 4.11, installed in 1996, with particulate matter controlled by one (1) baghouse common to this facility and EU 7.1, with the baghouse equipped with “Smartimers” for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to facilities EU 4.2 through EU 4.6 and EU 4.10 and EU 4.11, except when otherwise specified in 40 CFR Part 60, Subpart UU.

D.3.2 Visible Emissions [326 IAC 12][40 CFR 60, Subpart UU]

Pursuant to the New Source Performance Standards, 326 IAC 12 (40 CFR Part 60.472, Subpart UU), the visible emissions shall not exceed one (1) percent for mineral handling and storage facilities EU 4.2 through EU 4.6, and EU 4.10 and EU 4.11.

D.3.3 Particulate [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emitted from the facilities listed below shall be limited as stated, based on the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Emission Unit/Activity	Process Weight Rate (tons/hr)	Allowable Emissions (326 IAC 6-3-2) (lb/hr)
filler silo #1 (EU 4.1)	22.5	33.02
filler silo #2 (EU 4.2)	22.5	33.02
filler silo #4 (EU 4.3)	22.5	33.02
parting agent silo #3 (EU 4.4)	2.2	6.95
parting agent use bin (EU 4.5)	2.2	6.95
filler upper surge hopper (EU 4.7)	22.5	33.02
filler lower surge hopper (EU 4.8)	22.5	33.02
surfacing material silo #7 (EU 4.10)	17.2	27.58
surfacing material receiving bin (EU 4.11)	17.2	27.58

D.3.4 Particulate Matter (PM and PM-10) Emission Limitations [326 IAC 2-8-4][326 IAC 2-2] [40CFR 52.21]

PM and PM-10 emitted from the control device of each facility shall be limited 0.02 grains per dry standard cubic foot of exhaust gas. This limitation is equivalent to the following:

Emission Unit/Activity	Control Device Fan Flow Rate (cfm)	Equivalent PM/PM10 Emissions (lb/hr)
filler silo #1 (EU 4.1)	1,070	0.18
filler silo #2 (EU 4.2)	535	0.09
filler silo #4 (EU 4.3)	1,070	0.18
parting agent silo #3 (EU 4.4)	535	0.09
parting agent use bin (EU 4.5)	450	0.08
filler upper surge hopper (EU 4.7)	900	0.15
filler lower surge hopper (EU 4.8)	450	0.08
surfacing material silo #7 (EU 4.10)	500	0.09
surfacing material receiving bin (EU 4.11)	500	0.09

Based on 8,760 hours of operation per twelve (12) consecutive month period, compliance with this condition shall limit the source-wide potential to emit of PM and PM-10 to less than 100 tons per 12 consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) are not applicable to this source for emissions of PM-10. Compliance with this condition shall also make the requirements of 326 IAC 2-2 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD), not applicable to this source.

D.3.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their respective control devices.

Compliance Determination Requirements

D.3.6 Particulate and Particulate Matter (PM and PM-10) Control

In order to comply with D.3.2, D.3.3 and D.3.4, the baghouses for particulate, PM, and PM-10 control shall be in operation and control emissions from each mineral storage facility at all times that each storage facility is in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.7 Visible Emissions Notations

(a) Visible emissions notations of each mineral storage facility's baghouse stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere.

(b) Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record "yes" or "no" whether emissions are observed. The "yes" means visible emissions are observed and the "no" means that visible emissions are not observed. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the respective baghouse(s) used in conjunction with each mineral storage facility, at least once per shift when each mineral storage facility is in operation. During periods of inclement weather, these readings shall be performed as weather permits. When for any one reading, the pressure drop across each baghouse is outside the normal range of 0.25 and 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan-Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months. Those baghouses utilizing "Smartimers" (factory-calibrated instruments used for determining the pressure drop of dust collectors which do not require field calibration) shall be subject to approval by IDEM, OAQ, but shall not be subject to calibration at least once every six (6) months.

D.3.9 Baghouse Inspections

An inspection shall be performed within the last month of each calender quarter of all bags controlling the mineral storage facilities. All defective bags shall be replaced.

D.3.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B - Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.11 Record Keeping Requirements

(a) To document compliance with Conditions D.3.2 and D.3.7, the Permittee shall maintain records of visible emission notations of each mineral storage facility baghouse stack exhaust once per shift.

(b) To document compliance with Condition D.3.8, the Permittee shall maintain the once-per-shift records of the total static pressure drop at each mineral storage facility baghouse during normal operation. During periods of inclement weather, a log must be kept of dates when readings are not taken.

(c) To document compliance with Condition D.3.9, the Permittee shall maintain records of the results of the inspections required under Condition D.3.9.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

There are no specific reporting requirements applicable to these facilities.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
one (1) asphalt filler mixer identified as EU 5.1, rated at 300 gallons per minute, utilizing a screw conveyor for mineral filling and gravity flow for tank emptying, as an enclosed facility without an exhaust stack

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

The throughput to the asphalt filler mixer (EU 5.1) is limited to 28,502,400 gallons per twelve (12) consecutive month period with compliance determined at the end of each month. Based on the U.S. EPA AP-42 document, Section 7, this usage limit is equivalent to limiting the potential to emit of VOC to 3.35 tons per twelve (12) consecutive month period based on 8,760 hours of operation per 12 consecutive month period. This usage limit, including the potential to emit for the other significant and insignificant activities, is required to limit the source-wide potential to emit of VOC to less than 100 tons per year.

Compliance with this limitation shall make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source. Compliance with this condition shall also make the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD), not applicable to the source.

Compliance Determination Requirements

There are no specific compliance determination requirements applicable to this facility.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific compliance monitoring requirements applicable to this facility.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.2 Record Keeping Requirements

(a) To document compliance with Condition D.4.1, the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.4.1:

(1) Calendar dates covered in the compliance determination period;

(2) The throughput to EU 5.1 per month since the last compliance determination period.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.3 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
five (5) facilities with a common production rate limit, consisting of:

(1) six (6) surfacing material silos #1 - #6 collectively identified as EU 4.9, installed after November 1980, all exhausting at one (1) stack identified as 20;

(2) one (1) asphalt coater (coating rolls) and coating surge tank identified as EU 6.1, installed in 1982, with particulate matter controlled by one (1) fiber bed filter, exhausting at one (1) stack identified as 36;

(3) one (1) material surfacing applicator (material surfacing area) identified as EU 7.1, rated at 471 thousand cubic feet per hour with particulate matter controlled by one (1) baghouse common to this facility and EU 4.11, with the baghouse equipped with “Smartimers” for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14;

(4) one (1) cooling section identified as EU 7.2, installed in 1989, exhausting at two (2) stacks identified as 41 and 42; and

(5) fugitive emissions building ventilators, identified as ID# 93.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.5.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]
The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the asphalt coater and surge tank (EU 6.1), except when otherwise specified in 40 CFR Part 60, Subpart UU.

D.5.2 Particulate Matter (PM) [326 IAC 12][40 CFR 60, Subpart UU]
Pursuant to the New Source Performance Standards, 326 IAC 12 (40 CFR Part 60.472, Subpart UU), the source shall comply as follows for the asphalt coater and surge tank (EU 6.1):

(a) PM emissions shall not exceed 0.04 kilograms per megagram of asphalt shingle or mineral-surfaced roll roofing produced;

(b) exhaust gas opacity shall not exceed 20 percent; and

(c) visible emissions from a capture system shall not exceed 20 percent of any period of consecutive valid observations totaling 60 minutes.

This PM emission limitation is equivalent to 4.148 pounds per hour, based on a production rate of 51.85 tons of asphalt shingle per hour.

D.5.3 Particulate [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emitted from the facilities listed below shall be limited as stated, based on the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

and

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Emission Unit/Activity	Process Weight Rate (tons/hr)	Allowable Emissions (326 IAC 6-3-2) (lb/hr)
six (6) surfacing material silos #1 - #6 (collectively as EU 4.9)	17.2	27.58
asphalt coater/surge tank (EU 6.1)	35.8	41.52
material surfacing applicator (EU 7.1)	55.2	45.50
cooling section (EU 7.2)	55.2	45.50

D.5.4 Volatile Organic Compounds (VOC) and Particulate Matter (PM and PM10) [326 IAC 2-8-4] [326 IAC 2-2][40 CFR 52.21]

The production of asphalt products at each facility is limited to 454,200 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This usage limit is equivalent to the following:

(a) EU 4.9:
PM and PM10 emissions limited to 0.0017 pounds emitted per ton of asphalt product produced. Based on 8,760 hours of operation per 12 consecutive month period, this equates to 0.39 tons per 12 consecutive month period.

(b) EU 6.1:
(1) PM and PM10 emissions limited to 0.071 pounds emitted per ton of asphalt product produced. Based on 8,760 hours of operation per 12 consecutive month period, this equates to 1.61 tons per 12 consecutive month period.

(2) VOC emissions limited to 0.091 pounds emitted per ton of asphalt product produced. Based on 8,760 hours of operation per 12 consecutive month period, this equates to 20.67 tons per 12 consecutive month period.

(c) EU 7.1:

(1) PM and PM10 emissions limited to 0.02 grains per dry standard cubic foot (gr/dscf) at the control device exhaust. Based on 8,760 hours of operation per 12 consecutive month period and a control device exhaust rate of 7,850 cubic feet per minute, this equates to 5.89 tons per 12 consecutive month period.

(2) VOC emissions limited to 0.003 pounds emitted per ton of asphalt product produced. Based on 8,760 hours of operation per 12 consecutive month period, this equates to 0.68 tons per 12 consecutive month period.

(d) EU 7.2:

(1) PM and PM10 emissions limited to 0.0357 pounds emitted per ton of asphalt product produced. Based on 8,760 hours of operation per 12 consecutive month period, this equates to 61.32 tons per 12 consecutive month period.

(2) VOC emissions limited to 0.035 pounds emitted per ton of asphalt product produced. Based on 8,760 hours of operation per 12 consecutive month period, this equates to 7.95 tons per 12 consecutive month period.

(e) ID# 93

(1) PM and PM10 emissions limited to 0.0357 pounds emitted per ton of asphalt product produced. Based on 8,760 hours of operation per 12 consecutive month period, this equates to 8.10 tons per 12 consecutive month period.

(2) VOC emissions limited to 0.0973 pounds emitted per ton of asphalt product produced. Based on 8,760 hours of operation per 12 consecutive month period, this equates to 22.09 tons per 12 consecutive month period.

Compliance with this condition, including the potential to emit of the other significant and insignificant activities, shall limit the source-wide potential to emit of VOC, PM and PM-10 to less than 100 tons per 12 consecutive month period. Compliance with this limitation shall make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source for emissions of VOC and PM-10. Compliance with this condition shall also make the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD) not applicable to the source.

D.5.5 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4]

Any change or modification which may increase the potential to emit single or combined HAPs from the entire source to ten (10) or twenty-five (25) tons per year or more, respectively, shall require approval from IDEM, OAQ, prior to making the change.

D.5.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for facilities EU 6.1 and EU 7.1 and their control devices.

Compliance Determination Requirements

D.5.7 Particulate and Particulate Matter (PM and PM-10) Control

In order to comply with D.5.2, D.5.3 and D.5.4, the fiber bed filter and the baghouse for particulate, PM, and PM-10 control shall be in operation and control emissions respectively from EU 6.1 (asphalt coater) and EU 7.1 (material surfacing applicator) at all times that the facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.5.8 Visible Emissions Notations

(a) Visible emission notations of the respective EU 6.1, EU 7.1, EU 7.2 stack exhausts and the ID# 93 ventilators' exhaust shall be performed during normal daylight operations when exhausting to the atmosphere.

(b) Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record "yes" or "no" whether emissions are observed. The "yes" means visible emissions are observed and the "no" means that visible emissions are not observed. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.5.9 Parametric Monitoring

(a) The Permittee shall record the total static pressure drop across the fiber bed filter and the baghouse respectively used in conjunction with the asphalt coater (EU 6.1) and material surfacing applicator (EU 7.1), at least once per shift when EU 6.1 and EU 7.1 are in operation. During periods of inclement weather, these readings shall be performed as weather permits. When for any one reading, the pressure drop across the fiber bed filter or the baghouse is outside the respective normal ranges of 4 and 20 inches of water and 0.25 and 10 inches of water, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months. Those baghouses utilizing "Smartimers" (factory-calibrated instruments used for determining the pressure drop of dust collectors which do not require field calibration) shall be subject to approval by IDEM, OAQ, but shall not be subject to calibration at least once every six (6) months.

D.5.10 Baghouse and Fiber Bed Filter Inspections

(a) An inspection shall be performed within the last month of each calender quarter of all bags controlling the material surfacing applicator (EU 7.1). All defective bags shall be replaced.

(b) An inspection shall be performed within the last month of each calender quarter of the fiber bed filter controlling the asphalt coater/surge tank (EU 6.1). All defective filters shall be replaced.

D.5.11 Broken or Failed Filter and Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B - Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For the fiber bed filter and single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.5.12 Record Keeping Requirements

(a) To document compliance with Condition D.5.4, the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC, PM and PM10 emission limits established in Condition D.5.4:

(1) Calendar dates covered in the compliance determination period;

(2) Asphalt product production at each of facilities EU 4.9, EU 6.1, EU 7.1, EU 7.2, and ID #93 per month since the last compliance determination period.

(b) To document compliance with Condition D.5.9, the Permittee shall maintain the once-per-shift records of the total static pressure drop at each of the asphalt coater (EU 6.1) fiber bed filter and material surfacing applicator (EU 7.1) baghouse during normal operation. During periods of inclement weather, a log must be kept of dates when readings are not taken.

(c) To document compliance with Conditions D.5.2 and D.5.8, the Permittee shall maintain records of visible emission notations of each of EU 6.1, EU 7.1, EU 7.2 stack exhausts, and the ID# 93 ventilators' exhaust stack, once per shift.

(d) To document compliance with Condition D.5.10, the Permittee shall maintain records of the results of the inspections required under Condition D.5.10.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.13 Reporting Requirements

A quarterly summary of the information to document compliance with Condition 5.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units (Btu) per hour. This includes one (1) 0.25 Million British Thermal Units per hour rated boiler installed after 1983

(b) one (1) granule and sand reclaim system, identified as EU 6.2, with a maximum capacity of 4 tons granules and sand per day, exhausting through one stack identified as 71A. The potential emissions from this activity are calculated to be 0.0136 pounds per day.

(c) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including two cold cleaning parts washers installed in 2000.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.6.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the boiler, as an insignificant activity, shall be limited to 0.573 pounds per MMBtu heat input determined as the lesser of the value *Pt* (i.e., 0.573 lb/MMBtu) computed with the following formula,

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = emission rate limit (lb PM / MMBtu)
Q = total source operating capacity rating (2.35 MMBtu/hr)

or six-tenths (0.6) pounds per MMBtu heat input for facilities with a heat input rate (Q) of less than ten (10) MMBtu per hour.

D.6.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the granule and sand reclaim system (EU 6.2) shall not exceed 10.38 pounds per hour when operating at a process weight rate of 4 tons per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.6.3 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall ensure that the following requirements are met for each of the two (2) cold cleaning facilities installed in 2000:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

Compliance Determination Requirement

There are no specific compliance determination requirements applicable to these facilities.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific compliance monitoring requirements applicable to these facilities.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

There are no specific record keeping or reporting requirements applicable to these facilities.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Owens Corning
Source Address: 128 W. Eighth Street, Brookville, IN 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP No.: 047-15014-00005

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: Owens Corning
Source Address: 128 W. Eighth Street, Brookville, IN 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP No.: 047-15014-00005

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Owens Corning
Source Address: 128 W. Eighth Street, Brookville, IN 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP No.: 047-15014-00005
Facility: Combustion emission units EU 1.1, EU 1.2, EU 1.3, and EU 1.4
Parameter: No. 2 fuel oil usage
Limit: total input of No. 2 fuel oil to the four (4) combustion facilities EU 1.1, EU 1.2, EU 1.3 and EU 1.4 is limited to 216,240 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Total No. 2 Fuel Oil Usage This Month (gallons)	Total No. 2 Fuel Oil Usage Previous 11 Months (gallons)	12 Month Total No. 2 Fuel Oil Usage (gallons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Owens Corning
Source Address: 128 W. Eighth Street, Brookville, IN 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP No.: 047-15014-00005
Facility: Four (4) liquid storage tanks EU 2.1, EU 2.2, EU 2.3, and EU 3.1
Parameter: Storage Tank Material Throughput
Limit:
(a) The total combined throughput to asphalt tanks #1 (EU 2.1) and #2 (EU 3.1) is limited to 28,502,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.
(b) The throughput to each of adhesive tanks #7 (EU 2.2) and #7A (EU 2.3) is limited to 1,295,640 gallons per twelve (12) consecutive months with compliance determined at the end of each month.

YEAR: _____

Month	Throughput This Month (gallons)			Throughput Previous 11 Months (gallons)			12 Month Total Throughput (gallons)		
	Total, EU2.1& EU3.1	EU2.2	EU2.3	Total, EU2.1& EU3.1	EU2.2	EU2.3	Total, EU2.1& EU3.1	EU2.2	EU2.3
Month 1									
Month 2									
Month 3									

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Owens Corning
Source Address: 128 W. Eighth Street, Brookville, IN 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP No.: 047-15014-00005
Facility: Asphalt filler mixer (EU 5.1)
Parameter: Material Throughput
Limit: The throughput to the asphalt filler mixer (EU 5.1) is limited to 28,502,400 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Total Throughput This Month (gallons)	Total Throughput Previous 11 Months (gallons)	12 Month Total Throughput (gallons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Owens Corning
Source Address: 128 W. Eighth Street, Brookville, IN 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP No.: 047-15014-00005
Facility: The five (5) facilities EU 4.9 (surfacing material silos #1 - #6 collectively), EU 6.1 (asphalt coater and surge tank), EU 7.1 (material surfacing applicator), EU 7.2 (cooling section), and ID #93 (fugitive emissions building ventilators)
Parameter: Asphalt product production rate
Limit: The production of asphalt product at each facility is limited to 454,200 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Asphalt Product * Produced This Month (tons)	Asphalt Product * Produced Previous 11 Months (tons)	12 Month Asphalt Product Produced (tons)
Month 1			
Month 2			
Month 3			

* Specify the greatest production rate, if the rates differ among the five (5) subject facilities.

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Owens Corning
Source Address: 128 W. Eighth Street, Brookville, IN 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP No.: 047-15014-00005

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: ______________________________

Title/Position: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	**Owens Corning**
Source Location:	**128 W. Eighth Street, Brookville, IN 47012**
County:	**Franklin**
SIC Code:	**2952**
Operation Permit No.:	**F047-15014-00005**
Permit Reviewer:	**Michael Hirtler / EVP**

On September 25, 2002, the Office of Air Quality (OAQ) had a notice published in the Brookville Democrat, Brookville, Indiana, stating that Owens Corning had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate an asphalt felt, coatings, and roofing products manufacturing source. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On October 28, 2002, OAQ received comments from Owens Corning in relation to the proposed FESOP Renewal. The summary of the comments and related responses is as follows, with any changes made to the permit shown in bold and deleted permit language shown with a line through it:

Comment 1:

Sections D.2.6, D.3.7, and D.5.8:

Visible Emissions Notations: Owens Corning requests that visible emissions monitoring be required once per day during daylight hours - and *not* once per shift during daylight hours. During a significant portion of the year, daylight lasts for less than one full shift. Requiring Owens Corning to conduct visible emission monitoring during any daylight hours that may remain in a day's second shift would be an undue burden, and would not substantially increase unit performance or reliability. Given that there is absolutely no evidence that additional daily visible emissions monitoring would improve performance or reliability, IDEM has no reasonable basis for requiring that visible emissions monitoring be performed more than once per day.

Response to Comment 1:

Pursuant to 326 IAC 2-8-4(3) and 326 IAC 2-8-5(a)(1), compliance monitoring conditions are in the permit in order to assure compliance with the terms and conditions of the permit. Applicable visible and particulate emission limitations are included in the permit at Sections D.2, D.3, and D.5. In order to assure continuous compliance with these visible and particulate limitations, compliance monitoring that includes visible emissions notations is required per Conditions D.2.6, D.3.7, and D.5.8.

IDEM, OAQ recognizes that the original FESOP for this source required that visible emissions notations be made on a daily basis. However, the increased monitoring frequencies of D.2.6, D.3.7, and D.5.8. of this renewal are not intended to improve the performance or reliability of the control equipment utilized by the Permittee, although such reliability is important in terms of meeting the requirements of this permit. Instead, the once per shift monitoring frequencies provide for improved assurance that the Permittee complies with all relevant and applicable requirements. As explained in the Technical Support Document (TSD) to the draft permit, control device failures can occur suddenly; therefore monitoring of relevant operational parameters should be more frequent than daily in such cases where a source operates more than one shift per day. The OAQ believes that changing the requisite compliance monitoring to once per operating shift is a reasonable requirement.

Since Conditions D.2.6, D.3.7, and D.5.8 each require that monitoring be conducted during normal daylight hours, the Permittee does not need to perform the monitoring during a time of year when a full operating shift does not coincide with daylight. There are no changes to Conditions D.2.6, D.3.7, and D.5.8 due to this comment.

Comment 2:

Sections D.2.7, D.3.8, and D.5.9:

Parametric Monitoring: Owens Corning requests that pressure drop readings be required once per day during daylight hours - and *not* once per shift during daylight hours. Requiring Owens Corning to record pressure drop readings once per shift would be an undue burden, and would not substantially increase unit performance or reliability. Since there is no evidence that additional daily pressure drop readings would improve fiber bed filter or baghouse performance or reliability, IDEM has no reasonable basis for requiring that these pressure drop readings be recorded more than once per day.

Response to Comment 2:

As indicated in Response to Comment 1, the increased monitoring frequencies associated with D.2.7, D.3.8, and D.5.9 are not intended to improve the performance or reliability of the control equipment utilized by the Permittee, although such reliability is important in terms of meeting the requirements of this permit. Instead, the once per shift monitoring frequencies provide for improved assurance that the Permittee complies with all relevant and applicable requirements. As explained in the TSD to the draft permit, control device failures can occur suddenly; therefore monitoring of relevant operational parameters should be more frequent than daily in such cases where a source operates more than one shift per day. The OAQ believes that changing the requisite compliance monitoring to once per operating shift is a reasonable requirement. There are no changes to Conditions D.2.7, D.3.8, and D.5.9 due to this comment.

Comment 3:

Sections D.3.8, D.3.9, and D.5.10:

Fiber Bed Filter and Baghouse Inspections: Owens Corning requests that the requirement to perform quarterly inspections on control equipment filters and bags be removed from the draft permit. Requiring quarterly inspections would be an undue burden, and would not substantially increase unit performance or reliability. Furthermore, Owens Corning has a comprehensive preventive maintenance program in place.

The preventive maintenance program requires inspection of control devices based upon operating conditions. Operating conditions that would initiate an inspection include differential pressure readings that are out of operation ranges or observance of particulates in the exhaust air. Control device operating conditions are monitored daily through differential pressure readings and visible emission notations. In addition, operating conditions are monitored by tracking the differential pressure reading trends. This trend information is used to anticipate the advent of an out of specification conditions and initiate inspection and corrective action tasks.

Since there is no evidence that quarterly inspections would improve control equipment performance or reliability (over daily pressure differential and emission readings), IDEM has no reasonable basis for requiring such inspections.

Response to Comment 3:

Pursuant to 326 IAC 2-8-4(3) and 326 IAC 2-8-5(a)(1), compliance monitoring conditions are in the permit in order to assure compliance with the terms and conditions of the permit. Applicable visible and particulate emission limitations are included in the permit at Sections D.2, D.3, and D.5. In order to assure compliance with these visible and particulate limitations, compliance monitoring that includes quarterly bag and filter checks is required per Conditions D.2.8 (it is presumed that the Permittee is referring to D.2.8, rather than D.3.8 as indicated in their comment letter), D.3.9, and D.5.10.

IDEM, OAQ does not agree that the once-per-quarter inspection frequency is burdensome, as the Permittee is already required to conduct similar inspections pursuant to Condition D.2.3 of Significant Permit Revision No. 047-11198, issued on January 10, 2000. IDEM, OAQ acknowledges that the Permittee has a preventive maintenance program in place; however, such is a separate requirement of the permit, pursuant to 326 IAC 1-6-3 and 326 IAC 2-8-4(9), which must be implemented irrespective of the quarterly control device inspection requirements. However, if the preventive maintenance program includes an inspection of the control equipment within the last month of each calendar quarter, such would satisfy the inspection requirements of D.2.6, D.3.7, and D.5.8. The results of such inspections shall continue to be documented according to the respective record keeping requirements of D.2.11, D.3.11, and D.5.12

The monitoring frequencies associated with Conditions D.2.8, D.3.9, and D.5.10 are not intended to improve the performance or reliability of the equipment utilized by the Permittee, although such reliability is important in terms of meeting the requirements of this permit. Instead, monitoring helps to assure that the Permittee complies with all relevant and applicable requirements. Therefore, there is no change to Conditions D.2.8, D.3.9, and D.5.10 due to this comment.

Upon further review, and in addition to the Comments/Responses presented above, the OAQ has decided to make the following changes to the FESOP renewal (changes in bold and strikeout for emphasis):

1. Clarifying language is inserted at Condition B.3 to indicate that the permit term begins on the date of issuance:

B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the ~~original~~ **issuance** date **of this permit**, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

2. Since Condition B.8(c) already addresses confidentiality, the last sentence of paragraph (b) is revised to remove the statement about confidential information, and paragraph (c) is updated for clarity. Also, the condition is revised to change a rule reference. Paragraph (c) references 326 IAC 17. This rule was repealed by the Air Pollution Control Board on January 26, 2000, and the new rule reference has been added. The condition is updated as follows:

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. ~~or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]~~

(c) **For information furnished by the Permittee to IDEM, OAQ,** the Permittee may include a claim of confidentiality in accordance with 326 IAC 17**.1**. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

3. Condition B.10(c) is revised as follows:

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in ~~condition~~ **Section** B, Emergency Provisions.

4. The requirement to include emergencies in the Quarterly Deviation and Compliance Monitoring Report is moved from B.15(c) and placed at B.14(h). Also, the statement at the end of B.14(b)(4) is removed since this is repeated at B.14(f). The affected paragraphs at Both B.14 and B.15 are revised as follows:

B.14 Emergency Provisions [326 IAC 2-8-12]

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and the IDEM Northern Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
Telephone No.: 1-800-753-5519 (IDEM Northern Regional Office)
Facsimile No.: 219-245-4877 (IDEM Northern Regional Office)

~~Failure to notify IDEM, OAQ, and the IDEM Northern Regional Office, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]~~

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

~~(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.~~

5. Condition B.18 is revised to replace "should" with "shall" in paragraph (b).

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application ~~should~~ **shall** be certified by the "authorized individual" as defined by
326 IAC 2-1.1-1(1).

6. Condition B.19 is revised at the rule citations in order to be consistent with 326 IAC 2-8-15(a)(5). The rule cite is likewise revised in B.19(a)(5). Also, B.19(b) is deleted since this is a Part 70 requirement and not a FESOP requirement.

B.19 Operational Flexibility [326 IAC 2-8-15]**[326 IAC 2-8-11.1]**

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)**(2)**, (c)(1), and (d).

(b) ~~The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:~~

~~(1) A brief description of the change within the source;~~

~~(2) The date on which the change will occur;~~

~~(3) Any change in emissions; and~~

~~(4) Any permit term or condition that is no longer applicable as a result of the change.~~

~~The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.~~

~~(c)~~ Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

~~(d)~~**(c)** Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

7. Condition B.22(c) is revised to correct the citation as follows:

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-~~11~~**10**(b)(3)]

8. Condition B.23 specifies that nonpayment of annual fees may result in revocation of the permit. This is not specified in 326 IAC 2-8; therefore, the appropriate rule cite of 326 IAC 2-1.1-7 is added to B.23. Also, the section and phone number of who the Permittee can contact is corrected in paragraph (c).

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-~~4~~(6)] [326 IAC 2-8-16]**[326 IAC 2-1.1-7]**

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-~~0425~~ **4320** (ask for OAQ, ~~Technical Support and Modeling Section~~ **I/M & Billing Section**), to determine the appropriate permit fee.

9. Condition C.1 is revised for greater clarity and consistency with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), which was revised from 326 IAC 6-3 (Process Operations) and became effective on June 12, 2002. As of the date this permit is being issued these revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the condition also cites the existing approved into the SIP until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

C.1 Particulate Emission Limitations For ~~Manufacturing~~ Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour **[40 CFR 52 Subpart P]** [326 IAC 6-3-2~~(e)~~]

(a) Pursuant to ~~326 IAC 6-3-2(e)(2)~~ **40 CFR 52 Subpart P**, the allowable particulate **matter** emissions rate from any ~~manufacturing~~ process not ~~exempt by 326 IAC 6-3-1 or~~ already regulated by ~~326 IAC 6-3-2(b) through (d)~~ **326 IAC 6-1 or any New Source Performance Standard**, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

10. Condition C.9(e) is revised to correct the rule cite as follows:

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-~~4~~**1** emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

11. Condition C.11 is revised to state what OAQ does when stack testing, monitoring, or reporting is required to assure compliance with applicable requirements:

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements **by issuing an order under 326 IAC 2-1.1-11.** Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

12. Condition C.19(d) is revised to indicate that the stated requirement applies to all reports:

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(d) Unless otherwise specified in this permit, ~~any quarterly~~ **all** report**s** required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. ~~The~~**All** reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

13. Conditions D.1.3 and D.6.1 are revised to remove "Matter" and "PM" from these conditions for consistency with the rules, and to provide language corrections as follows:

D.1.3 Particulate ~~Matter (PM)~~ [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating), **the** PM emissions from the hot oil heater (EU 1.4) shall be limited to 0.6 pounds per MMBtu heat input determined as the lesser of the value *Pt* (i.e., 7.28 lb/MMBtu) computed with the following formula,

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where: Pt = emission rate limit (lb PM / MMBtu)
C = maximum ground-level concentration (50 micrograms per cubic meter)
a = plume rise factor (0.67 for Q less than 1,000 MMBtu/hr)
h = stack height (29 feet)
Q = total source operating capacity rating (2.1 MMBtu/hr)
N = number of stacks in fuel burning operation (1)

or six**-tenths (**0.6**)** pounds per MMBtu **heat input** for facilities with a heat input rate (Q) of less than ~~ten (~~250~~)~~ MMBtu per hour **and which began operation after June 8, 1972**.

D.6.1 Particulate ~~Matter (PM)~~ [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate ~~Matter~~ Emission Limitations for Sources of Indirect Heating), **the** PM emissions from the boiler, as an insignificant activity, shall be limited to 0.573 pounds per MMBtu heat input determined as the lesser of the value *Pt* (i.e., 0.573 lb/MMBtu) computed with the following formula,

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = ~~pounds of PM emitted per MMBtu heat input~~ **emission rate limit** (lb **PM** / MMBtu)
Q = total source operating capacity rating (2.35 MMBtu/hr)

or six**-tenths (**0.6**)** pounds per MMBtu **heat input** for facilities with a heat input rate (Q) of less than ten (10) MMBtu per hour.

14. Previously, the terms “particulate” and “particulate matter” were both used in the 326 IAC 6-3, but revisions were made to the rule which became effective on June 12, 2002 that included using the term “particulate” is used consistently in 326 IAC 6-3. Conditions D.3.4, D.3.6, and D.5.7 are revised accordingly:

D.3.4 **Particulate Matter (**PM and PM-10**)** Emission Limitations [326 IAC 2-8-4][326 IAC 2-2] [40CFR 52.21]

D.3.6 Particulate **and Particulate** Matter (PM and PM-10) **Control**

In order to comply with D.3.2, D.3.3 and D.3.4, the baghouses for **particulate,** PM, and PM-10 control shall be in operation and control emissions from each mineral storage facility at all times that each storage facility is in operation.

D.5.7 Particulate **and Particulate** Matter (PM and PM-10) **Control**

In order to comply with D.5.2, D.5.3 and D.5.4, the fiber bed filter and the baghouse for **particulate,** PM, and PM-10 control shall be in operation and control emissions respectively from EU 6.1 (asphalt coater) and EU 7.1 (material surfacing applicator) at all times that the facilities are in operation.

15. Condition D.6.3 is revised to address the condition to the Permittee:

D.6.3 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the ~~owner or operator~~ **Permittee** shall ensure that the following requirements are met for each of the two (2) cold cleaning facilities installed in 2000:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	**Owens Corning**
Source Location:	**128 W. Eighth Street, Brookville, IN 47012**
County:	**Franklin**
SIC Code:	**2952**
Operation Permit No.:	**F047-15014-00005**
Permit Reviewer:	**Michael Hirtler / EVP**

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Owens Corning relating to the operation of an asphalt felt, coatings, and roofing products manufacturing source. Owens Corning was issued FESOP No. 047-5160-00005 on October 22, 1997.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) four (4) fuel combustion emission units (EU) consisting of:

(1) one (1) natural gas fired asphalt preheater #1 identified as EU 1.1, installed in 1991, rated at 2.5 million British thermal units (MMBtu) per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 65;

(2) one (1) natural gas fired asphalt preheater #2 (asphalt saturant preheater) identified as EU 1.2, installed in 1996, rated at 1.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 66;

(3) one (1) natural gas fired filler heater (asphalt saturant preheater) identified as EU 1.3, installed in 1979, rated at 2.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 15; and

(4) one (1) natural gas fired hot oil heater identified as EU 1.4, installed in 1982, rated at 2.1 MMBtu per hour and using No. 2 fuel oil as a backup, exhausting at one (1) stack identified as 67;

(b) four (4) liquid storage tanks, consisting of:

(1) one (1) 40,000 gallon capacity asphalt tank #1 identified as EU 2.1, installed in 1990, rated at 200 gallons per minute, with a fiber filter bed to control particulate matter, exhausting at one (1) stack identified as 71;

(2) one (1) 10,000 gallon capacity adhesive tank #7 identified as EU 2.2, placed into service during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) unlabeled stack; and

(3) one (1) 10,000 gallon capacity adhesive tank #7A identified as EU 2.3, installed during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) unlabeled stack;

(4) one (1) 30,000 gallon capacity asphalt tank #2 identified as EU 3.1, installed in 1947, rated at 200 gallons per minute, exhausting at one (1) stack identified as 72;

(Note: Tanks 7 and 7A, approved and included in original FESOP No. 047-5160, issued, October 22, 1997, are not yet put into service at the time of this approval. However, Owens Corning has confirmed their intention to install and utilize these two (2) storage tanks as indicated, including the stated particulate control devices. Therefore, these facilities and the relevant conditions of original FESOP, Section D.2, remain in this FESOP renewal.)

(c) mineral storage facilities utilizing pneumatic conveying and controlled by baghouses, consisting of:

(1) one (1) filler silo #1 identified as EU 4.1, installed in 1979, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing “Smartimers” for controlling cleaning cycle frequency, each exhausting at one (1) individual stack identified as 74 and 75;

(2) one (1) filler silo #2 identified as EU 4.2, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 77;

(3) one (1) filler silo #4 identified as EU 4.3, installed in 1993, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing “Smartimers” for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 80 and 81;

(4) one (1) parting agent silo #3 identified as EU 4.4, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 79;

(5) one (1) parting agent use bin identified as EU 4.5, installed in 1991, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 14A;

(6) one (1) filler upper surge hopper identified as EU 4.7, installed in 1979, rated at 54 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing “Smartimers” for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 15A and 15B;

(7) one (1) filler lower surge hopper identified as EU 4.8, installed in 1979, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing “Smartimers” for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 15C;

(8) one (1) surfacing material silo #7 identified as EU 4.10, installed in 1996, rated at 30 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse, exhausting at one (1) stack; and

(9) one (1) surfacing material receiving bin rated at 30 thousand cubic feet per hour and identified as EU 4.11, installed in 1996, with particulate matter controlled by one (1) baghouse common to this facility and EU 7.1, with the baghouse equipped with “Smartimers” for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14.

(d) one (1) asphalt filler mixer identified as EU 5.1, rated at 300 gallons per minute, utilizing a screw conveyor for mineral filling and gravity flow for tank emptying, as an enclosed facility without an exhaust stack;

(e) five (5) facilities with a common production rate limit, consisting of:

(1) six (6) surfacing material silos #1 - #6 collectively identified as EU 4.9, installed after November 1980, all exhausting at one (1) stack identified as 20;

(2) one (1) asphalt coater (coating rolls) and coating surge tank identified as EU 6.1, installed in 1982, with particulate matter controlled by one (1) fiber bed filter, exhausting at one (1) stack identified as 36;

(3) one (1) material surfacing applicator (material surfacing area) identified as EU 7.1, rated at 471 thousand cubic feet per hour with particulate matter controlled by one (1) baghouse common to this facility and EU 4.11, with the baghouse equipped with “Smartimers” for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14;

(4) one (1) cooling section identified as EU 7.2, installed in 1989, exhausting at two (2) stacks identified as 41 and 42; and

(5) fugitive emissions building ventilators, identified as ID# 93.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Advanced Source Revision Approval

There are no new facilities proposed at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British Thermal Units per hour. This includes one (1) 0.58 Million British Thermal Units per hour rated furnace, sixteen (16) 0.075 Million British Thermal Units per hour individually rated furnaces, and one (1) 0.25 Million British Thermal Units per hour rated boiler installed after 1983;

(b) propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British Thermal Units per hour;

(c) equipment powered by internal combustion engines of capacity equal to or less than 500,000 British Thermal Units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British Thermal Units per hour;

(d) combustion source flame safety purging on startup;

(e) the following VOC and HAP storage containers:

(1) storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons;

(2) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(f) machining where an aqueous cutting coolant continuously floods the machining interface;

(g) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including two cold cleaning parts washers installed in 2000;

(h) cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kilopascal (kPa); 15 millimeter of mercury; or 0.3 pounds per square inch measured at 38 degrees C (100 ^{o}F) or;

(2) having a vapor pressure equal to or less than 0.7 kilopascal (kPa); 5 millimeter of mercury; or 0.1 pounds per square inch measured at 20 ^{o}C (68 ^{o}F);

the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;

(i) the following equipment related to manufacturing activities not resulting in the emission of hazardous air pollutants (HAPs); brazing equipment, cutting torches, soldering equipment welding equipment, including the total use of less than 625 pounds of welding consumables per day and less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness of less is cut.;

(j) closed loop heating and cooling systems.

(k) noncontact cooling tower systems with forced and induced draft not regulated under NESHAP;

(l) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(m) process vessel degassing and cleaning to prepare for internal repairs;

(n) paved and unpaved roads and parking lots with public access, identified as ID# 91;

(o) blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower;

(p) on-site fire and emergency response training approved by the department;

(q) a laboratory as defined in 326 IAC 2-7-1(20)(C);

(r) additional activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day and VOC emissions below three (3) pounds per hour or fifteen (15) pounds per day:

(1) one (1) granule and sand reclaim system, identified as EU 6.2, with a maximum capacity of 4 tons granules and sand per day, exhausting through one stack identified as 71A. The potential emissions from this activity are calculated to be 0.0136 pounds per day.

(Note: This facility, approved in Significant Permit Revision No. 047-11198, issued on January 10, 2000, had been listed in Section D.5. The potential PM and PM10 emission rates for this facility are below the insignificant threshold and, therefore, this facility is instead listed in this approval as an insignificant activity.)

(2) one (1) parting agent recycle system rated at 27 thousand cubic feet per hour and identified as EU 4.6;

(3) VOC emissions from pumps, valves, flanges, etc., identified as ID# 92;

(4) fugitive particulate matter emissions from material unloading, identified as ID# 94;

(5) ink jet printer; and

(6) application of adhesive to asphalt coated product, using up to one (1) ton per hour adhesive, including:

(A) adhesive use tank #1;

(B) adhesive melt tank #1;

(C) adhesive melt tank #2;

(D) adhesive use tank #2;

(E) laminating adhesive use tank;

(F) laminating adhesive melt tank;

(G) adhesive applicator pan #1;

(H) adhesive applicator pan #2; and

(I) laminating adhesive applicator pan.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) FESOP No. 047-5160-00005, issued on October 22, 1997;

(b) First Administrative Amendment No. 047-9594, issued on May 22, 1998; and

(c) First Significant Permit Revision No. 047-11198, issued on January 10, 2000.

All conditions from previous approvals were incorporated into this FESOP, except the following changes have been made:

(a) *FESOP No. 047-5160-00005, issued on October 22, 1997:*

D.1.2 Sulfur Dioxide (SO_2)
The sulfur content of the No. 2 fuel oil combusted shall not exceed 0.486%. Compliance with this condition, when combined with the fuel usage limits in Condition D.1.1, will limit sulfur dioxide emissions to less than 25 tons per year. Therefore 326 IAC 7-1.1 (SO_2 Emissions Limitations) will not apply.

Reason Changed: Condition D.1.2 has been revised to remove reference to the fuel oil usage limit. The fuel oil usage limit of D.1.1 is a source-wide limit that is unrelated to 326 IAC 7-1.1, since the 25 ton per year rule applicability threshold is facility specific. The fuel oil sulfur content limit, which will be revised to reflect one (1) significant digit (i.e., 0.5%), consistent with current OAQ permitting procedures, results in an uncontrolled potential to emit of SO2 below 25 tons per year for each facility (see page 3 of 14, Appendix A). As such, the requirements of 326 IAC 7-1.1 will continue to not apply.

D.1.3 Particulate Matter (PM)

Pursuant to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), the emissions from EU 1.2 and from EU 1.4 are limited to 0.8 pounds of particulate matter per million British thermal units and the emissions from EU 1.1 are limited to 0.576 pounds of particulate matter per million British thermal units.

Reason Changed: Condition D.1.3 has been revised to remove reference to emission units EU 1.1 and EU 1.2. Based on information provided by the source, these two (2) combustion units are used to heat piping that contains asphalt. Pursuant to 326 IAC 1-2-19 (Combustion for Indirect Heating), IDEM has determined this method of material (i.e., asphalt) heating to be direct since heat is directly transferred to the asphalt from the pipe. Therefore, the requirements of 326 IAC 6-2 are not applicable to either facility. For hot oil heater EU 1.4, the source has provided information indicating that oil is heated and circulated through pipes around adhesive use tanks. This process results in the indirect heating of the adhesive via heat transfer from the directly heated oil. Therefore, the requirements of 326 IAC 6-2 continue to apply to EU 1.4.

D.4.1 Particulate Matter (PM and PM_{10})

This operating condition imposes no limitation below the potential to emit for total particulate matter and PM_{10} emissions from the nine (9) storage vessels controlled by the twelve (12) baghouses. The potential emissions from these baghouses are 1.03 pounds per hour. At this emission rate in conjunction with the other operating conditions stated elsewhere in the permit, total source particulate matter and PM_{10} emissions are limited to less than 100 tons per year, therefore, the requirements of 326 IAC 2-7 do not apply.

Reason Changed: Condition D.4.1 of the original FESOP has been replaced in its entirety by new Conditions D.3.3 and D.3.4 (this section is now D.3 in this renewal permit, as described in the discussion on Sections D.2 and D.3, below). Although Condition D.4.1 specifies total potential emissions from the affected facilities at 1.03 pounds per hour, which is a controlled emission rate, the condition incorrectly states that no limitation below the potential to emit for total particulate matter and PM10 emissions from the affected facilities is needed. The condition has been revised to include readily verifiable emission limits for each controlled facility necessary to make compliance with 326 IAC 2-8 federally enforceable. Conditions of baghouse operation and pressure drop readings, without enforceable limits, do not make the permit federally enforceable. Such limits are now incorporated at new Condition D.3.4. New Condition D.3.4 also includes the citations 326 IAC 2-2 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The original FESOP included limited PM at Condition D.4.1, but omitted the appropriate rule citations such that the rule requirements do not apply to this source.

The requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), were also inadvertently omitted from original Section D.4. These requirements are now inserted into this renewal approval as new D.3.3.

D.4.3 Daily Visible Emission Observations

(a) Pursuant to 326 IAC 12 (40 CFR part 60.470, Subpart UU - Standards of Performance

for Asphalt Processing and Asphalt Roofing Manufacture), the raw material silos (EU 4.1 through 4.11) visible emissions shall be limited to 1 percent.

Reason Changed: The requirements of Subpart UU have been eliminated for mineral handling and storage facilities EU 4.1, EU 4.7 and EU 4.8, since each was constructed in 1979 which is prior to the rule applicability date of November 18, 1980. No changes to the rule requirements are made for the remaining mineral handling and storage facilities, EU 4.2 through EU 4.6 and EU 4.9 through 4.11.

D.5.2 Daily Visible Emission Observations

Daily visible emission notations of the mixer stack exhaust shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when abnormal emission is observed. Pursuant to 326 IAC 5-1-2 (1), visible emissions shall meet the following limitations:

(a) visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings; and

(b) visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes in a six hour period.

Reason Changed: The asphalt filler mixer, EU 5.1, utilizes a screw conveyor for mineral filling and gravity flow for tank emptying, and is an enclosed facility without an exhaust stack. This facility has always been configured as such and Condition D.5.2 is removed since its requirements do not affect this facility.

(b) *First Significant Permit Revision No. 047-11198, issued on January 10, 2000*

Sections D.2 and D.3

Reason Changed: Sections D.2 and D.3 have been combined into one (1) section, Section D.2. Significant Permit Revision No. 047-11198 revised the throughput limit to tank #1, which is covered under Section D.2, and tank #2, which is covered under Section D.3, to reflect a total combined throughput limit for the two facilities. Since the same requirements apply to these two (2) facilities, Sections D.2 and D.3 have been merged. Sections subsequent to D.3 have been renumbered accordingly.

D.6.3 Pressure Readings

The Permittee shall take readings of the total static pressure drop across the EU 7.1 baghouse exhaust and the EU 6.1 fiber bed filter exhaust controlling this operation, at least once per day when the process is in operation. During periods of inclement weather, these readings shall be performed as weather permits. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the EU 7.1 baghouse exhaust shall be maintained within the range of 0.25 and 10 inches of water or a range established during the latest stack test and the EU 6.1 fiber bed filter exhaust shall be maintained within the range of 4 and 12 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with condition C.10 - Pressure Gauge Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months. Those baghouses utilizing “Smartimers” (factory-calibrated instruments used for determining the pressure drop of dust collectors which do not require field calibration) shall be subject to approval by IDEM, OAM, but shall not be subject to calibration at least once every six (6) months.

Reason Changed: On November 5, 2001, OAQ received a letter from the source requesting that the pressure drop range established in Condition D.6.3 be revised for the fiber bed filter, based on information the source received from their control device vendor. The existing range of 4 to 12 inches was based on inside operation of the device, but since the device operates outdoors, the vendor has recommended 4 to 20 inches of water as a more appropriate range. This new pressure drop range is included in this permit renewal.

Enforcement Issue

There are no enforcement actions pending during this renewal review.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on October 31, 2001. Additional information was received on November 5, 2001, July 11, 2002 and July 19, 2002.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (fourteen (14) pages in Appendix A). It is noted that the source has emissions of H_2S from various facilities. The source has conservatively assumed these H_2S emissions are emitted as SO_2 (i.e., multiply the H_2S emission rates by the ratio of 64/34, the ratio of molecular weights of SO_2 to H_2S). Also, the asphalt filler mixer (EU 5.1) is an enclosed system utilizing enclosed piping, screw conveyor and gravity feed to convey materials to and from the facility. The source, however, has opted to conservatively compute facility emissions based on AP-42, Section 7.1 (see page 5 of 14, Appendix A), assuming potential emissions are conveyed through the piping to the next facility in series, the asphalt coater EU 6.1). Appendix A presents separate emission computations for both EU 5.1 and EU 6.1. A material throughput limit is established in Condition D.4.1 of the FESOP renewal, based on the potential emissions computed for EU 5.1.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Potential To Emit (tons/year)
PM	greater than 250
PM-10	greater than 250
SO_2	less than 100
VOC	greater than 100, less than 250
CO	less than 100
NO_x	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP	PTE (tons/year)
HCl	less than 10
Formaldehyde	less than 10
Xylene	less than 10
Benzene	less than 10
Toluene	less than 10
Ethyl benzene	less than 10
1,1,1 Trichloroethylene	less than 10
Total Polycyclic Organic Matter (POM)	less than 10
Lead Compounds	less than 10
Arsenic Compounds	less than 10
Chromium Compounds	less than 10
Cobalt Compounds	less than 10
Manganese Compounds	less than 10
Nickel Compounds	less than 10
Selenium Compounds	less than 10
Methyl Ethyl Ketone	less than 10
TOTAL HAPs	less than 25

Note: Total POM includes 2-Methylnapthalene, Acenanapthalene, Fluorine, Naphthalene, Phenanthrene, and Pyrene.

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM-10 and VOC are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Pursuant to 326 IAC 2-8, this source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict PTE to below Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP).

(c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD applicability.

Potential to Emit After Issuance

The source, issued a FESOP on October 22, 1997, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Process Heating Units (EU1.1, 1.2, 1.3 and 1.4) (1)	0.22	0.39	7.57	0.28	4.27	5.08	negligible
Asphalt storage tanks (EU2.1 & 3.1)	1.24 (2)	1.24 (2)	0.51	5.63	2.01	0.00	negligible
Adhesive storage tanks (EU 2.2 & 2.3)	0.04 (2)	0.04 (2)	0.04	0.19	0.18	0.00	0.00
Mineral storage facilities (each controlled by baghouse - 9 facilities)	4.51(3)	4.51(3)	0.00	0.00	0.00	0.00	0.00
Mineral storage - uncontrolled (EU 4.9)	0.39	0.39	0.00	0.00	0.00	0.00	negligible
Asphalt filler mixer (EU 5.1)	1.01	1.01	0.21	4.31	0.49	0.00	0.00
Asphalt coater/surge tank (EU 6.1)	1.61(3)	1.61(3)	1.04	20.67	1.14	0.00	0.70
Surfacing material applicator (EU 7.1)	5.89(3)	5.89(3)	0.00	0.68	0.00	0.00	0.00
Cooling section (EU 7.2)	61.32	61.32	0.00	7.95	0.00	0.00	0.58
Building ventilators (ID #93)	8.10	8.10	0.00	22.09	0.00	0.00	4.03
Insignificant activities (4)	0.13	0.18	0.01	2.23	1.02	4.87	1.37
Total After Issuance	84.46	84.68	9.38	64.03	9.11	9.95	6.68

Notes:
1. Emission rates reflect the greater of full-year natural gas firing or limited No. 2 oil firing.
2. Tanks 2.1, 2.2 and 2.3 each have a fiber bed filter for particulate control. For purposes of 326 IAC 2-8 compliance, operation of these controls is unnecessary and is not reflected in these emission rates. Only the material throughput limits are reflected in these emission rates.
3. Reflects the use of particulate control devices which shall be operated at all times the processes are in operation. Assumes all PM equal to PM10.
4. Includes natural gas and LPG combustion; fugitive pump seals & flanges; hot oil loss (ID# 92); and cold cleaning (2 units).

County Attainment Status

The source is located in Franklin County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Franklin County has been designated as attainment or unclassifiable for ozone.

(b) Franklin County has been classified as attainment or unclassifiable for the remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

(a) (1) 40 CFR Part 60, Subpart UU (Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture)

The coater/coating surge tank EU 6.1 (i.e., saturator, as defined at 40 CFR §60.471); the mineral handling and storage facilities EU 4.2 through EU 4.6 and EU 4.9 through EU 4.11; and the asphalt storage tank EU 2.1 are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.470 through 60.474, Subpart UU), since each is an affected facility that was constructed after the rule applicability date of November 18, 1980.

Asphalt storage tank #2 (EU 3.1) is not subject to the requirements of Subpart UU since it was constructed in 1947 prior to the rule applicability date of November 18, 1980. Also, mineral handling and storage facilities EU 4.1, EU 4.7 and EU 4.8 were each constructed prior to November 18, 1980 and, therefore, are not subject to Subpart UU.

Therefore, pursuant to the New Source Performance Standards, 326 IAC 12, (40 CFR Part 60.470 through 60.474, Subpart UU), the source shall continue to comply as follows:

(A) For the coater and surge tank (EU 6.1):

(i) PM emissions shall not exceed 0.04 kilograms per megagram of asphalt shingle or mineral-surfaced roll roofing produced;

(ii) Exhaust gas opacity shall not exceed 20 percent; and

(iii) Visible emissions from a capture system shall not exceed 20 percent of any period of consecutive valid observations totaling 60 minutes.

(Note: Pursuant to 40 CFR 60.473(a) (Monitoring of Operations), a source is required to continuously monitor and record the control device inlet gas temperature if it uses a high velocity air filter (e.g., fiber bed filter) to meet the emission limit in paragraph (A)(i) above. This source conducted IDEM approved stack testing of the asphalt coater (EU 6.1) in October 2000 and demonstrated compliance with the emission limit in paragraph (A)(i) without operating the fiber bed filter. Therefore, the requirements of 40 CFR 60.473(a) are not applicable to this source.

(B) For mineral handling and storage facilities EU 4.2 through EU 4.6 and EU 4.9 through EU 4.11, the visible emissions shall not exceed one (1) percent.

(C) For asphalt storage tank #1 (EU 2.1):

(i) Visible emissions shall not exceed zero (0) percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device (i.e., fiber bed filter) shall not be bypassed during this 15-minute period.

(ii) If the emissions from the asphalt storage tank are ducted to a control device for the saturator (i.e., EU 6.1), the combined emissions shall meet the emission limit contained in Condition D.5.2, during the time the saturator control device is operating. At any other time the asphalt storage tank must meet the opacity limit specified in paragraph (C)(i).

(2) 40 CFR Part 60, Subparts K, Ka, and Kb (Standards of Performance for Petroleum Liquid Storage Vessels and Volatile Liquid Storage Vessels)

The 30,000 gallon asphalt tank #2 (EU 3.1) and the two 10,000 gallon adhesive tanks (EU 2.2 and EU 2.3) are not subject to the requirements of 326 IAC 12, (40 CFR Parts 60.110, 110a - 115a or 110b - 117b, as Subparts K, Ka, and Kb, respectively), since EU 2.2 and EU 2.3 have storage capacities that are below the minimum applicable threshold to the three rules (i.e., 40 cubic meters (10,568 gallons)), and EU 3.1 was built in 1947 prior to the applicability date of all three rules. Also, the adhesive use and melt tanks, as insignificant activities, are not subject to these rule requirements, since they are process vessels that do not meet the definition of “storage vessel”, and their individual capacities are less than 10,000 gallons.

The existing 40,000 gallon asphalt storage tank #1 (EU 2.1) is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels" since it was modified after July 23, 1984 and the storage capacity is greater than 40 cubic meters. With a storage capacity greater than 75 cubic meters but less than 151 cubic meters (i.e., 147 cubic meters) and having a maximum true vapor pressure less than 15.0 kPa, the tank is subject only to the record keeping requirements of 40 CFR 116b(a) and (b). Therefore, the source shall continue to comply as follows:

Pursuant to New Source Performance Standard (NSPS), 326 IAC 12 and 40 CFR Part 60.116 Subpart Kb, the Permittee shall maintain accessible records for the life of asphalt storage tank #1 (EU 2.1). The records shall include:

(A) The date the tank was manufactured,

(B) The dimensions of the tank,

(C) An analysis showing the capacity of the tank, and

(D) The vapor pressure of the volatile organic liquid stored, indicating the maximum true vapor pressure is less than 15 kPa at the temperature stored.

(3) 326 IAC 12, (40 CFR Part 60.670 through 60.676, Subpart OOO-Standards of Performance for Nonmetallic Mineral Processing Plants)

The mineral handling and storage facilities are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.670 through 60.676, Subpart OOO) since they are not located at a non-metallic mineral processing plant and there is no crushing or grinding of non-metallic minerals at the source.

(b) (1) 40 CFR Part 63, Subpart T (National Emission Standards for Halogenated Solvent Cleaning)

The parts degreasing operation that includes two (2) cold cleaning parts wash tanks with capacities each less than 145 gallons, as an insignificant activity, is still not subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 20, (40 CFR 63, Subpart T). Subpart T applies to degreasing operations using one of six listed halogenated solvents, or any combination of the solvents in a concentration greater than 5 percent by weight, as a cleaning or drying agent. The source does not use the regulated halogenated solvents in the degreasing operation; therefore, Subpart T does not apply.

(2) The United States Environmental Protection Agency (U.S. EPA) has established the *Asphalt Processing and Asphalt Roofing Manufacturing* source category as requiring hazardous air pollutant control and has proposed a such requirements on November 21, 2001. As a FESOP source, this plant will not be subject to the pending NESHAP for source categories, 326 IAC 20, (40 CFR 63, Subpart LLLLL), *National Emission Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing*, for its metal parts coating processes since the source is not a major source of hazardous air pollutants pursuant to 40 CFR Part 63.2.

There are still no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 61, and 326 IAC 20 and 40 CFR Part 63) applicable to this source category.

State Rule Applicability - Entire Source

326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration, PSD)

This existing minor stationary source, which was initially constructed prior to the August 7, 1977 rule applicability date, is not major because the source, which is not one of the 28 listed source categories, does not have the potential to emit of 250 tons per year or more of any criteria pollutant after federally enforceable controls and limitations. The source will continue to be both a FESOP source and minor stationary source after this renewal and no attainment regulated pollutant shall be emitted at a rate of 100 tons per year or more. Therefore, the PSD requirements still do not apply to this source.

326 IAC 2-6 (Emission Reporting)

This source is located in Franklin County which is not one of the specifically listed counties, nor, as a FESOP source, does the source have the potential to emit CO, VOC, NO_X, PM10, or SO_2 in amounts at or exceeding one-hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-6 still do not apply to the source.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM-10 and VOC shall be limited to less than one hundred (100) tons per year. The source shall comply as follows:

(a) The total input of No. 2 fuel oil to the four (4) combustion facilities EU 1.1, EU 1.2, EU 1.3 and EU 1.4 is limited to 216,240 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The total combined throughput to asphalt tanks #1 (EU 2.1) and #2 (EU 3.1) is limited to 28,502,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(c) The throughput to each of adhesive tanks #7 (EU 2.2) and #7A (EU 2.3) is limited to 1,295,640 gallons per twelve (12) consecutive months with compliance determined at the end of each month.

(d) The total PM-10 emitted from the source shall be controlled to less than 100 tons per year by complying with the applicable control technology operating, monitoring, and record keeping requirements of Section D.3.

(e) The throughput to asphalt filler mixer EU 5.1 is limited to 28,502,400 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(f) The production of asphalt products at each facility is limited to 454,200 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limitations shall make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source. Compliance with these limitations shall also make the requirements of 326 IAC 2-2 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD), not applicable.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the PTE 10 tons per year of any HAP or 25 tons per year of the combination of HAPs, and is constructed or reconstructed after July 27, 1997, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). No facilities with an uncontrolled PTE of 10 tons per year of any single HAP and 25 tons per year of the combination of HAPs have been constructed or reconstructed since July 27, 1997. Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) do not apply to this source.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

This source is subject to 326 IAC 6-2 for its indirect heating facilities that include the hot oil heater (EU 1.4), installed in 1982, and the 0.25 MMBtu per hour boiler, as an insignificant activity, installed after 1983. It is noted that each of asphalt preheaters #1 (EU 1.1) and preheater #2 (EU 1.2) were determined in the original FESOP to be indirect heating facilities. However, these two combustion units, along with the filler heater (EU 1.3), are used to heat the piping that contains either asphalt or filler material. This direct method of heat transfer, from heated pipe to material, is not applicable under the provisions of 326 IAC 6-2. Therefore, the source shall comply as follows:

(a) Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating), PM emissions from the hot oil heater (EU 1.4) shall be limited to 0.6 pounds per MMBtu heat input determined as the lesser of the value *Pt* (i.e., 7.28 lb/MMBtu) computed with the following formula,

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where: Pt = emission rate limit (lb PM / MMBtu)
C = maximum ground-level concentration (50 micrograms per cubic meter)
a = plume rise factor (0.67 for Q less than 1,000 MMBtu/hr)
h = stack height (29 feet)
Q = total source operating capacity rating (2.1 MMBtu/hr)
N = number of stacks in fuel burning operation (1)

or six 0.6 pounds per MMBtu for facilities with a heat input rate (Q) of less than ten (250) MMBtu per hour.

(b) Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from the boiler, as an insignificant activity, shall be limited to 0.573 pounds per MMBtu heat input determined as the lesser of the value *Pt* (i.e., 0.573 lb/MMBtu) computed with the following formula,

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = pounds of PM emitted per MMBtu heat input (lb/MMBtu)
Q = total source operating capacity rating (2.35 MMBtu/hr)

or six 0.6 pounds per MMBtu for facilities with a heat input rate (Q) of less than ten (10) MMBtu per hour.

PM emissions from each of these combustion facilities are in compliance with 326 IAC 6-2 by calculation (see TSD Appendix A , pages 2 and 3 of 14, for detailed calculations).

326 IAC 6-3-2 (Manufacturing Processes)

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emitted from the facilities listed below shall be limited as stated, based on the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

and

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

Emission Unit/Activity	Process Weight Rate (tons/hr)	Uncontrolled Particulate Emissions (lb/hr)	Control Efficiency %	Controlled Particulate Emissions (lb/hr)	Allowable Emissions (326 IAC 6-3-2) (lb/hr)
filler silo #1 (EU 4.1)	22.5	18.34	99%	0.18	33.02
filler silo #2 (EU 4.2)	22.5	9.17	99%	0.09	33.02
filler silo #4 (EU 4.3)	22.5	18.34	99%	0.18	33.02
parting agent silo #3 (EU 4.4)	2.2	9.17	99%	0.09	6.95
parting agent use bin (EU 4.5)	2.2	7.71	99%	0.08	6.95
filler upper surge hopper (EU 4.7)	22.5	15.43	99%	0.15	33.02
filler lower surge hopper (EU 4.8)	22.5	7.71	99%	0.08	33.02
surfacing material silo #7 (EU 4.10)	17.2	8.57	99%	0.09	27.58
surfacing material receiving bin (EU 4.11)	17.2	8.57	99%	0.09	27.58
six (6) surfacing material silos #1 - #6 (collectively as EU 4.9)	17.2	0.09	0%	0.09	27.58
asphalt coater/surge tank (EU 6.1)	35.8	16.12	90%	1.61	41.52
granule & sand reclaim system (EU 6.2) *	4.0	0.0006	0%	0.0006	10.38
material surfacing applicator (EU 7.1)	55.2	134.57	99%	1.35	45.50
cooling section (EU 7.2)	55.2	14.00	0%	14.00	45.50

* Insignificant activity, which is uncontrolled with actual emissions well below 25 tons per year; therefore, there is no compliance monitoring condition for this facility.

Particulate emissions from these activities are in compliance with 326 IAC 6-3-2(e) by calculation (see Appendix A, 14 pages), and the source utilizes baghouses and fiber bed filters for particulate matter control on the emission units. The baghouses and fiber bed filters shall be in operation at all times the related processing facilities are in operation, in order to comply with this limit.

326 IAC 8-1-6 (General Reduction Requirements)

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more, and are not otherwise regulated by other provisions of Article 8. The facilities at this source do not have a potential to emit of VOC at 25 tons per year or more. Therefore, the requirements of 326 IAC 8-1-6 do not apply to this source.

326 IAC 8-3-2 (Cold Cleaner Operations)

The source, which is located in Franklin County and maintains two (2) cold cleaning parts wash tanks with capacities of less than 145 gallons (i.e., insignificant activities), is subject to the applicable rule requirements since the cleaners, installed in 2000, are new after January 1, 1980. As such, and pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the owner or operator shall ensure that the following requirements are met for each of the two (2) cold cleaning facilities installed in 2000:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

The source continues to comply with these requirements for the two (2) cold cleaning facilities.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The requirements of this rule apply to cold cleaning degreasers without remote solvent reservoirs that either existed as of July 1, 1990 and were located in a specified county, or the cleaning facility was constructed after July 1, 1990 and was located anywhere in the state. This source, located in Franklin County, which is a non-listed county, is not subject to the applicable rule requirements since the degreaser has a remote solvent reservoir.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

Pursuant to 326 IAC 8-4-1 (Applicability) and 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities), all petroleum liquid storage vessels located in a specified county or new as of January 1, 1980, and having capacities greater than one hundred fifty thousand (150,000) liters (39,000 gallons) containing VOC whose true vapor pressure is greater than 10.5 kPa (1.52 psi), are subject to the rule. These facilities shall comply with the applicable requirements for external fixed and floating roof tanks and the specified record keeping and reporting requirements. Asphalt storage tank #1, EU 2.1, (40,000 gallons) is not subject to IAC 8-4-3 because the liquid asphalt has a true vapor pressure less than the rule applicability threshold of 10.5 kPa, and asphalt tank #2 and adhesive tank #7 and #7A each have capacities less than the rule applicability threshold capacity of 39,000 gallons.

326 IAC 8-6 (Organic Solvent Emission Limitations)

This rule applies to sources existing as of January 1, 1980, located in Lake and Marion Counties, as well as to sources commencing operation after October 7, 1974 and prior to January 1, 1980 that are located anywhere in the state, with potential VOC emissions of 100 tons per year or more, and not regulated by any other provision of Article 8. This source is located in Franklin County; was constructed prior to October 7, 1974; and, as a FESOP source, shall limit total VOC to less than 100 tons per year. Therefore, this rule does not apply to this source.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

The requirements of this rule apply to stationary sources located in Lake, Porter, Clark and Floyd Counties that emit or have the potential to emit VOCs at levels equal to or greater than 25 tons per year in Lake and Porter Counties; 100 tons per year in Clark and Floyd Counties; and to any coating facility that emits or has the potential to emit 10 tons per year or greater in Lake, Porter, Clark or Floyd County. The source is located in Franklin County. Therefore, this rule is not applicable to this source.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. Stationary vessels with capacities less than 39,000 gallons are only subject to the reporting and record keeping requirements of the rule. This source is located in Franklin County. Therefore, this rule is not applicable to this source.

326 IAC 10 (Nitrogen Oxide Rules)

The requirements of Rule 1 (Nitrogen Oxides Control in Clark and Floyd Counties) apply to stationary sources located in Clark and Floyd Counties that emit or have the potential to emit NOx at 100 tons per year or more. The source is located in Franklin County and does not have a potential to emit NOx of 100 tons per years. Therefore, Rule 1 is not applicable to this source.

The requirements of Rule 2 (Nitrogen Oxides Budget Trading Program) establishes a NOx emissions budget and NOx trading program for electricity generating units and large affected units as defined in the rule. This stationary source is not subject to Rule 2 since it does not have either type of affected facility.

Testing Requirements

Pursuant to Condition D.6.2 of both the original FESOP and Significant Permit Revision No. 047-11196, the source performed compliance testing during October 2000 and again during June 2001. Compliance was demonstrated during each test. No additional testing is included by condition of this renewal permit. The use of AP-42 emission factors, combined with recent test results and testing frequency (i.e., two tests in two years), plus particulate emitting activities controlled by baghouses with controlled emissions below the related allowable particulate matter emission rates, satisfies OAQ testing requirements.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

(a) All compliance requirements from previous approvals were incorporated into this FESOP, except, where applicable, the frequencies for visible emission notations and baghouse pressure drop readings have been changed to once per shift.

Reason changed: Compliance monitoring conditions are in the permit in order to ensure continuous compliance with the requirements. Control device failure, including a baghouse, can occur suddenly; therefore monitoring of relevant operational parameters should be more frequent than weekly or even daily in such cases where a source operates more than one shift per day. The OAQ believes that changing visible emissions notations and pressure drop readings to once per operating shift is a reasonable requirement. Therefore, the requirements to perform visible emissions notations have been changed from daily to once per shift. This change likewise applies to the pressure drop readings. The compliance monitoring requirements applicable to this source are as follows:

(1) The asphalt tank #1 (EU 2.1), adhesive tank #7 (EU 2.2) and adhesive tank #7A (EU 2.3) have applicable compliance monitoring conditions as specified below:

(A) Visible emission notations of the EU 2.1 fiber bed filter stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record "yes" or "no" whether emissions are observed. The "yes" means visible emissions are observed and the "no" means that visible emissions are not observed. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(B) The Permittee shall record the total static pressure drop across the fiber bed filters for EU 2.1, EU 2.2 and EU 2.3 at least once per shift when each storage tank is in operation. When for any one reading, the pressure drop across any of the fiber bed filters is outside the normal range of 0.25 and 10 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan-Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(C) An inspection shall be performed within the last month of each calender quarter of the respective fiber bed filters controlling EU 2.1, EU 2.2, and EU 2.3. All defective filters shall be replaced.

(Note: The visible emission notation is required for EU 2.1 since it is the only asphalt storage facility affected by the visible emission requirement of 40 CFR 60, Subpart UU. Nonetheless, the source has opted to include facilities EU 2.2 and EU 2.3 in the compliance monitoring requirements for EU 2.1 (i.e., paragraphs (B) and (C) above.)

(2) The mineral storage facilities EU 4.1 through EU 4.5 and EU 4.7, EU 4.8, EU 4.10 and EU 4.11 have applicable compliance monitoring conditions as specified below:

(A) Visible emissions notations of each mineral storage facility's baghouse stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record "yes" or "no" whether emissions are observed. The "yes" means visible emissions are observed and the "no" means that visible emissions are not observed. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(B) The Permittee shall record the total static pressure drop across the respective baghouse(s) used in conjunction with each mineral storage facility, at least once per shift when each mineral storage facility is in operation. During periods of inclement weather, these readings shall be performed as weather permits. When for any one reading, the pressure drop across each baghouse is outside the normal range of 0.25 and 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan-Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(Note: The provision that, during periods of bad weather, the readings only be taken as weather permits, has been approved pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998. As such, this language has been retained in this renewal approval. The source shall continue to record dates when readings are not take due to poor weather conditions).

(C) An inspection shall be performed within the last month of each calender quarter of all bags controlling the mineral storage facilities. All defective bags shall be replaced.

(3) The five (5) facilities EU 4.9 (surfacing material silos #1 - #6 collectively), EU 6.1 (asphalt coater and surge tank), EU 7.1 (material surfacing applicator), EU 7.2 (cooling section), and ID #93 (fugitive emissions building ventilators) have applicable compliance monitoring conditions as specified below:

(A) Visible emission notations of the respective EU 6.1, EU 7.1, EU 7.2 stack exhausts and the ID# 93 ventilators' exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record "yes" or "no" whether emissions are observed. The "yes" means visible emissions are observed and the "no" means that visible emissions are not observed. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(B) The Permittee shall record the total static pressure drop across the fiber bed filter and the baghouse respectively used in conjunction with the asphalt coater (EU 6.1) and material surfacing applicator (EU 7.1), at least once per shift when EU 6.1 and EU 7.1 are in operation. During periods of inclement weather, these readings shall be performed as weather permits. When for any one reading, the pressure drop across the fiber bed filter or the baghouse is outside the respective normal ranges of 4 and 20 inches of water and 0.25 and 10 inches of water, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(Note: The provision that, during periods of bad weather, the readings only be taken as weather permits, has been approved pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998. As such, this language has been retained in this renewal approval. The source shall continue to record dates when readings are not take due to poor weather conditions).

(C) An inspection shall be performed within the last month of each calender quarter of all bags controlling the material surfacing applicator (EU 7.1). All defective bags shall be replaced.

(D) An inspection shall be performed within the last month of each calender quarter of the fiber bed filter controlling the asphalt coater/surge tank (EU 6.1). All defective filters shall be replaced.

These monitoring conditions are necessary because the source must operate properly to ensure compliance with the PM-10 and VOC emissions limits such that the source is limited to less than Title V applicability levels, and the stated facilities and their control devices must operate properly to ensure compliance with 326 IAC 5 (Visible Emission Limitations), 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-8-4 (FESOP), and the New Source Performance Standards, 40 CFR Part 60, Subpart UU.

Conclusion

The operation of this asphalt felt, coatings, and roofing products manufacturing source shall be subject to the conditions of the attached proposed FESOP Renewal No.: F047-15014-00005.

Appendix A: Emissions Summary

Company Name: Owens Corning
Address, City IN Zip: 128 W. Eighth Street, Brookville, IN 47012
FESOP Renewal : F047-15014-00005
Reviewer: Michael Hirtler / EVP
Date: June 20, 2002

Uncontrolled Potential to Emit (tons/year)

	Emissions Generating Activity											
Pollutant	Process* Heaters (EU1.1-1.4)	Asphalt Storage Tanks (EU2.1 & 3.1)	Adhesive Storage Tanks (EU 2.2 & 2.3)	Mineral Storage ** with Control (EU4.1-4.5,4.7,4.8,4.10,4.11)	Mineral Storage without Control (EU4.9)	Asphalt Filler Mixer (EU5.1)	Asphalt Coater & Surge Tank (EU6.1)	Surfacing Material Applicator (EU7.1)	Cooling Section (EU7.2)	Building Ventilators (ID #93)	Misc.*** Insignficant Activities	Total
PM	0.73	8.26	1.11	451.27	0.39	4.61	16.12	589.42	61.32	8.10	0.13	1,141.5
PM10	1.20	8.26	1.11	451.27	0.39	4.61	16.12	589.42	61.32	8.10	0.18	1,142.0
SO2	25.40	3.76	3.25	0.00	0.00	1.16	1.04	0.00	0.00	0.00	0.01	34.62
NOx	7.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.87	12.13
VOC	0.28	37.56	5.03	0.00	0.00	20.94	20.67	0.68	7.95	22.09	2.23	117.43
CO	4.27	14.83	14.60	0.00	0.00	2.71	1.14	0.00	0.00	0.00	1.02	38.57
HAPs	negligible	negligible	0.00	0.00	0.00	0.00	0.70	0.00	0.58	4.03	1.37	6.68

* Reflects the higher pollutant emissions from either natural gas or No. 2 distillate oil combustion at each of these four direct fired combustion units.
** No controls are assumed for the "mineral storage w/control" potential emissions.
*** Includes natural gas and LPG combustion, fugitive pump seals & flanges, hot oil loss, and cold cleaning (2 units), as insignificant activities.

Controlled/Limited Potential to Emit (tons/year)*

	Emissions Generating Activity											
Pollutant	Process** Heaters (EU1.1-1.4)	Asphalt Storage Tanks (EU2.1 & 3.1)	Adhesive Storage Tanks (EU 2.2 & 2.3)	Mineral Storage with Control (EU4.1-4.5,4.7,4.8,4.10,4.11)	Mineral Storage without Control (EU4.9)	Asphalt Filler Mixer (EU5.1)	Asphalt Coater & Surge Tank (EU6.1)	Surfacing Material Applicator (EU7.1)	Cooling Section (EU7.2)	Building Ventilators (ID #93)	Misc. Insignficant Activities	Total
PM	0.22	1.24	0.04	4.51	0.39	1.01	1.61	5.89	61.32	8.10	0.13	84.46
PM10	0.39	1.24	0.04	4.51	0.39	1.01	1.61	5.89	61.32	8.10	0.18	84.68
SO2	7.57	0.51	0.04	0.00	0.00	0.21	1.04	0.00	0.00	0.00	0.01	9.38
NOx	5.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.87	9.95
VOC	0.28	5.63	0.19	0.00	0.00	4.31	20.67	0.68	7.95	22.09	2.23	64.03
CO	4.27	2.01	0.18	0.00	0.00	0.49	1.14	0.00	0.00	0.00	1.02	9.11
HAPs	negligible	negligible	0.00	0.00	0.00	0.00	0.70	0.00	0.58	4.03	1.37	6.68

*Total emissions based on rated capacity at 8,760 hours/year, after federally enforceable controls and limitations (see Section D of this FESOP renewal for detailed limitations)
** Reflects the higher pollutant emissions from either full-year natural gas usage or limited No. 2 distillate oil usage at each of these four direct fired combustion units.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Owens Corning
Address, City IN Zip: 128 W. Eighth Street, Brookville, IN 47012
FESOP Renewal : F047-15014-00005
Reviewer: Michael Hirtler / EVP
Date: June 20, 2002

Combustion Unit	Heat Capacity (MMBtu/hr)	Pot. Fuel Thruput (MMCF/yr}	Emission Factor in lb/MMCF						Potential Emission Rate in tons/year					
			PM*	PM10*	SO2	NOx**	VOC	CO***	PM	PM10	SO2	NOx	VOC	CO
EU 1.1 (preheater 1)	2.5	21.90	1.9	7.6	0.6	100.0	5.5	84.0	0.02	0.08	0.01	1.10	0.06	0.92
EU 1.2 (preheater 2)	4.5	39.42	1.9	7.6	0.6	100.0	5.5	84.0	0.04	0.15	0.01	1.97	0.11	1.66
EU 1.3 (filler heater)	2.5	21.90	1.9	7.6	0.6	100.0	5.5	84.0	0.02	0.08	0.01	1.10	0.06	0.92
EU 1.4 (hot oil heater)	2.1	18.40	1.9	7.6	0.6	100.0	5.5	84.0	0.02	0.07	0.01	0.92	0.05	0.77
									0.10	0.39	0.03	5.08	0.28	4.27
Insignificant Nat. Gas Fired Units														
1 furnace at 0.58 MMBtu/hr	0.58	5.08	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.25	0.01	0.21
16 furnaces, each 0.075 MMBtu/hr	1.20	10.51	1.9	7.6	0.6	94.0	5.5	40.0	0.01	0.04	0.00	0.49	0.03	0.21
1 boiler, 0.25 MMBtu/hr	0.25	2.19	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.01	0.00	0.10	0.01	0.04
									0.02	0.07	0.01	0.85	0.05	0.47
LPG/Propane Firing														
Insignficant Activity	6	574.43	0.4	0.4	0.01	14.0	0.5	1.9	0.11	0.11	0.00	4.02	0.14	0.55
		(10^3 gallons)			*(0.10S)*		*TOC value*							
Uncontrolled Potential to Emit (tons per year):									0.23	0.57	0.04	9.95	0.47	5.28

Methodology
*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 94 for heat input capacity < 0.3 MMBtu/hr; = 100 for heat input capacity =>0.3 MMBtu/hr
***Emission Factors for CO: Uncontrolled = 40 for heat input capacity < 0.3 MMBtu/hr; = 84 for heat input capacity =>0.3 MMBtu/hr

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

For Natural Gas Firing:
Potential Throughput for each building combustion unit (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors for all units except generators from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPL. D 7/98)

For LPG/Propane Firing:
Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-03-010-02), expressed in units of pounds per 10^3 gallons.
1 gallon of LPG has a heating value of 94,000 Btu ;1 gallon of propane has a heating value of 91,500 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu. The heat input rate is assumed as the upper limit for the insignificant activities category.
PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well. Sulfur content assumed as 1 grain per 100 cu ft.

Compliance with 326 IAC 6-2
Pursuant to 326 IAC 6-2-1, indirect heating facilities not in a specified county, existing and operating prior to September 21, 1983, shall be limited by the formula established at 326 IAC 6-2-3 as follows:

Pt = (C * a * h) / (76.5 * Q^0.75 * N^0.25) where: Pt = allowable emission limit (lb PM /MMBtu)
C = max. groundlevel concentration for critical wind speed (50 ug/m^3)
a = plume rise factor (0.67 for Q <= 1,000 MMBtu/hr)
h = stack height (feet)
Q = total source maximum heat input (MMBtu/hr)
N = number of stacks in fuel burning operation

Hot oil heater EU 1.4 (installed 1982):
Pt = (50 * 0.67 * 29) / (76.5 * 2.1^0.75 * 1^0.25)
Pt = 7.28 lb/MMBtu. By 326 IAC 6-2-3(e) default, however, the allowable cannot exceed **0.6 lb/MMBtu**
1.26 lb PM / hour (equivalent allowable emissions)
5.52 ton PM / year (equivalent allowable emissior **(will comply)**

Pursuant to 326 IAC 6-2-1, indirect heating facilities not in a specified county, existing and operating after September 21, 1983, shall be limited by the formula established at 326 IAC 6-2-4 as follows:

Pt = 1.09 / Q^0.26 where: Pt = allowable emission limit (lb PM /MMBtu)
Q = total source maximum heat input (MMBtu/hr)

Boiler (insignificant activity, installed after 9/21/83)
Pt = 1.09 / (2.1+0.25)^0.26
Pt = 0.873 lb/MMBtu. By 326 IAC 6-2-4(a) default, however, the allowable cannot exceed **0.6 lb/MMBtu**
0.22 lb PM / hour (equivalent allowable emissions)
0.96 ton PM / year (equivalent allowable emissions) **(will comply)**

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
No. 2 Fuel Oil

Company Name: Owens Corning
Address, City IN Zip: 128 W. Eighth Street, Brookville, IN 47012
FESOP Renewal : F047-15014-00005
Reviewer: Michael Hirtler / EVP
Date: June 20, 2002

Combustion Unit	Heat Capacity (MMBtu/hr)	Pot. Fuel Thruput (gallons/yr}	Emission Factor in lb/10^3 gal						Potential Emission Rate in tons/year					
			PM	PM10	SO2 *(142S)*	NOx	VOC	CO	PM	PM10	SO2	NOx	VOC	CO
EU 1.1 (preheater 1)	2.5	156,429	2	3.3	70	20	0.34	5	0.16	0.26	5.48	1.56	0.03	0.39
EU 1.2 (preheater 2)	4.5	281,571	2	3.3	70	20	0.34	5	0.28	0.46	9.86	2.82	0.05	0.70
EU 1.3 (filler heater)	2.5	156,429	2	3.3	70	20	0.34	5	0.16	0.26	5.48	1.56	0.03	0.39
EU 1.4 (hot oil heater)	2.1	131,400	2	3.3	70	20	0.34	5	0.13	0.22	4.60	1.31	0.02	0.33
(total potential capacity & throughput):	11.6	725,829												
(total limted capacity & throughput):	11.6	216,240												
Uncontrolled Potential to Emit (tons per year):									0.73	1.20	25.40	7.26	0.12	1.81
Controlled/Limited Potential to Emit (tons per year):									0.22	0.36	7.57	2.16	0.04	0.54

Methodology
1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu
Emission Factors are from AP 42, Tables 1.3-2 and 1.3-4 (SCC 1-03-005-01/02/03), Sept. 1998. PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable.
Limited emissions based on Condition D.1 which limits total combined fuel oil usage at the four (4) combustion facilities to 216,240 gallons per 12 consecutive month period such that the requirements of 326 IAC 2-7 do not apply.

Compliance with 326 IAC 6-2
Pursuant to 326 IAC 6-2-1, indirect heating facilities not in a specified county, existing and operating prior to September 21, 1983, shall be limited by the formula established at 326 IAC 6-2-3 as follows:

Pt = (C * a * h) / (76.5 * Q^0.75 * N^0.25) where:
Pt = allowable emission limit (lb PM /MMBtu)
C = max. groundlevel concentration for critical wind speed (50 ug/m^3)
a = plume rise factor (0.67 for Q <= 1,000 MMBtu/hr)
h = stack height (feet)
Q = total source maximum heat input (MMBtu/hr)
N = number of stacks in fuel burning operation

Hot oil heater EU 1.4 (installed 1982):
Pt = (50 * 0.67 * 29) / (76.5 * 2.1^0.75 * 1^0.25)
Pt = 7.28 lb/MMBtu. By 326 IAC 6-2-3(e) default, however, the allowable cannot exceed **0.6 lb/MMBtu**
1.26 lb PM / hour (equivalent allowable emissions)
5.52 ton PM / year (equivalent allowable emissions) **(will comply)**

326 IAC 7 Compliance Calculations:
The following calculation determines the maximum sulfur content of distillate fuel oil allowable for unlimited use of No 2 fuel oil, assuming compliance with 326 IAC 7:
Allowable emission rate = 0.5 lb SO2 per million BTU (lb/MMBtu), pursuant to 326 IAC 7-1.1-2(a)(3)

$$140{,}000 \text{ Btu/gal} \times \frac{0.5 \text{ lb/MMBtu}}{142 \text{ lb*S/1000 gal}} =$$

Therefore, sulfur content must be less than or equal to 0.5% to comply with 326 IAC 7. Since each facility has a potential to emit SO2 less than 25 tpy, 326 IAC 7 does not apply, but the source will continue to comply with this fuel oil sulfur content limit, pursuant to Condition D.1.2.

Appendix A: Process Emission Calculations
PM/PM10 Controlled by Baghouse

Company Name: Owens Corning
Address, City IN Zip: 128 W. Eighth Street, Brookville, IN 47012
FESOP Renewal : F047-15014-00005
Reviewer: Michael Hirtler
Date: June 20, 2002

Emission Unit Description	Outlet Grain Loading (gr/acf)	Control Device Fan Flow Rate (acfm)	Control Efficiency (%)	Potential PM/PM10 Emission Rate Before Controls (lb/hr)	Before Controls (tons/yr)	After Controls (lb/hr)	After Controls (tons/yr)	Process Weight Rate (ton/hr)	326 IAC 6-3-2(e) PM Emission Rate (lb/hr)
EU4.1 (filler silo #1) w/2 identical baghouses	0.02	1,070	99.00%	18.34	80.34	0.18	0.80	22.5	33.02
EU4.2 (filler silo #2) w/1 baghouse	0.02	535	99.00%	9.17	40.17	0.09	0.40	22.5	33.02
EU4.3 (filler silo #4) w/2 identical baghouses	0.02	1,070	99.00%	18.34	80.34	0.18	0.80	22.5	33.02
EU4.4 (filler silo #3) w/1 baghouse	0.02	535	99.00%	9.17	40.17	0.09	0.40	2.2	6.95
EU4.5 (parting agent use bin #1) w/1 baghouse	0.02	450	99.00%	7.71	33.79	0.08	0.34	2.2	6.95
EU4.7 (filler upper surge hopper) w/2 identical baghouses	0.02	900	99.00%	15.43	67.58	0.15	0.68	22.5	33.02
EU4.8 (filler lower surge hopper) w/1 baghouse	0.02	450	99.00%	7.71	33.79	0.08	0.34	22.5	33.02
EU4.10 (surfacing material silo #7) w/1 baghouse	0.02	500	99.00%	8.57	37.54	0.09	0.38	17.2	27.58
EU4.11 (surfacing material receiving bin) w/1 baghouse	0.02	500	99.00%	8.57	37.54	0.09	0.38	17.2	27.58
EU7.1 (surfacing material applicator) w/1 baghouse	0.02	7,850	99.00%	134.57	589.42	1.35	5.89	55.2	45.50
Total Potential to Emit PM/PM10:				237.60	1,040.69	2.38	10.41		

Methodology:

Potential Uncontrolled Emissions (tons/yr) = Outlet Loading (grains/acf) * Fan Flow Rate (acfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs
Potential Controlled Emissions (tons/yr) = Outlet Loading (grains/acf) * Fan Flow Rate (acfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * (1 - Control Efficiency)

The allowable PM emission rate pursuant to 326 IAC 6-3-2(e), Manufacturing Processes:

$E = 4.10 * P^{0.67}$ where: E = allowable PM emission rate (lb/hr) for weight rates up to 60,000 lb/hr (30 ton/hr)
P = process weight rate (tons/hr)

and

$E = 55.0 * P^{0.11}$ where: E = allowable PM emission rate (lb/hr) for weight rates in excess of 60,000 lb/hr (30 ton/hr)
P = process weight rate (tons/hr)

Appendix A: Emission Calculations *

Company Name: Owens Corning
Address, City IN Zip: 128 W. Eighth Street, Brookville, IN 47012
FESOP Renewal : F047-15014-00005
Reviewer: Michael Hirtler
Date: June 20, 2002

	Maximum	Limited	Maximum	Limted	Maximum	Limited	Maximum	Limited
TANK NUMBER	EU2.1,EU3.1**	EU2.1&EU3.1***	EU2.2	EU2.2	EU2.3	EU2.3	EU5.1	EU5.1
PRODUCT STORED	Asphalt	Asphalt	Adhesive	Adhesive	Adhesive	Adhesive	Asphalt	Asphalt
TANK COLOR	Silver	Silver	Silver	Silver	Silver	Silver	Silver	Silver
TANK HEIGHT, H (ft)	29.33	29.33	16.8	16.8	36.5	36.5	29.33	29.33
TANK DIAMETER, D (ft)	15	15	10	10	12.5	12.5	15	15
TANK VOLUME, V (kBBL)	0.92	0.92	0.23	0.23	0.80	0.80	0.92	0.92
ROOF TYPE (CONE/DOME)	CONE	CONE	CONE	CONE	CONE	CONE	CONE	CONE
CONE ROOF PARAMETERS								
Tank Roof Slope (default .0625) (ft/ft)	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625
DOME ROOF PARAMETERS								
Dome Radius (Default=tank diameter, D)(ft)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
AVERAGE AMBIENT TEMP. (°F)	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1
STORAGE TEMP. (°F)	53.44	53.44	53.44	53.44	53.44	53.44	53.44	53.44
LOCAL ATMOS PRESS. (psia)	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
VAPOR MOLECULAR WT. (MW)	84	84	84	84	84	84	84	84
THROUGHPUT, Q (Bbl/yr)	2,502,857	678,629	2,502,857	30,849	2,502,857	30,849	3,754,286	678,629
% OF YEAR USED	100	100	100	100	100	100	100	100
PAINT SOLAR ABSORPTANCE, Table 5	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
SOLAR INSOLATION, Table 4	1,165	1,165	1,165	1,165	1,165	1,165	1,165	1,165
IS TANK WELDED (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y
IF TANK IS WELDED ENTER:								
Breather Vent Press.(Default=.03)(psig)	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Breather Vent Vacuum(Default=-.03)(psig)	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
ADDITIONAL DATA								
DIURNAL TEMP SWING (°F)	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
LIQUID HEIGHT (ft)	9.40	9.40	5.40	5.40	11.70	11.70	9.40	9.40
MAXIMUM LIQUID HEIGHT (ft)	9.40	9.40	5.40	5.40	11.70	11.70	9.40	9.40
ROOF OUTAGE (ft)	0.16	0.16	0.10	0.10	0.13	0.13	0.16	0.16
VAPOR SPACE OUTAGE (ft)	20.09	20.09	11.50	11.50	24.93	24.93	20.09	20.09
AVERAGE LIQUID SURFACE TEMP, (°R)	516.02	516.02	516.02	516.02	516.02	516.02	516.02	516.02
VAPOR TEMPERATURE RANGE	26.98	26.98	26.98	26.98	26.98	26.98	26.98	26.98
MAX LIQUID SURFACE TEMP, (°R)	522.76	522.76	522.76	522.76	522.76	522.76	522.76	522.76
MIN LIQUID SURFACE TEMP, (°R)	509.28	509.28	509.28	509.28	509.28	509.28	509.28	509.28
STOCK TURNOVER RATE	8460.26	2293.93	33136.00	408.41	9787.87	120.64	12690.38	2293.93
TVP AT MAX LIQ. SURF. TEMP (psia)	1.2100	1.2100	0.1700	0.1700	0.1700	0.1700	1.2100	1.2100
TVP AT AVG LIQ SURF TEMP (psia)	1.0300	1.0300	0.1400	0.1400	0.1400	0.1400	1.0300	1.0300
TVP AT MIN LIQ SURF TEMP (psia)	0.8700	0.8700	0.1100	0.1100	0.1100	0.1100	0.8700	0.8700
TIME PERIOD EVALUATED - - - - - - - -	ANNUAL	ANNUAL	ANNUAL	ANNUAL	ANNUAL	ANNUAL	ANNUAL	ANNUAL
STANDING STORAGE LOSS								
Tank Vapor Space Volume	3549.53	3549.53	903.54	903.54	3059.40	3059.40	3549.53	3549.53
Stock Vapor Density	0.02	0.02	0.00	0.00	0.00	0.00	0.02	0.02
Vapor Space Expansion Factor	0.07	0.07	0.05	0.05	0.05	0.05	0.07	0.07
Vented Vapor Saturation Factor	0.48	0.48	0.92	0.92	0.84	0.84	0.48	0.48
TOTAL STANDING STORAGE LOSS, lb/period	702.57	702.57	33.74	33.74	104.63	104.63	702.57	702.57
WORKING LOSS								
Working Loss Turnover Factor	0.17	0.18	0.17	0.24	0.17	0.42	0.17	0.18
Working Loss Product Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75
TOTAL WORKING LOSS, lb/period	36859.07	10553.70	4932.25	87.11	4995.81	150.68	41178.51	7915.27
TOTAL HC EMISSIONS, lb/yr (or /season) :	37,562	11,256	4,966	121	5,100	255	41,881	8,618
@ 100% VOC								
TOTAL VOC EMISSIONS, ton/yr	18.78	5.63	2.48	0.06	2.55	0.13	20.94	4.31
@22% VOC as PM/PM10, and 90% control****								
PM EMISSIONS Total, ton/yr :	4.13	0.12	0.546	0.001	0.561	0.003	4.607	N/A (uncontrolled)

* 'This spreadsheet derives from original FESOP No. 047-5160, and is based on the "Evaporative Loss from Fixed-Roof Tanks", API Publ. 2518, '2nd Edition, October 1991, as found in AP-42, Section 7.1, "Organic Liquid Storage Tanks", dated 9/97. There have been no changes to these emission factors for fixed-roof tanks since original FESOP issuance on 10/27/97, and, except for minor emissions differences due to available meteorological data parameters contained in its database for Indianapolis, Indiana, such was verified through the EPA's Tanks 4.09b computer program.

** Emissions are for each of EU2.1 and EU3.1

*** Emissions are total for EU2.1 and EU31, combined.

**** PM fraction estimate from study report "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading", by David C. Trumbore, Environmental Progress (Vol. 18, No. 4), Winter 1999 .

APPENDIX A: PROCESS EMISSIONS SUMMARY *

Source Name: **Owens Corning**
Source Location: **128 W. Eighth Street, Brookville, IN 47012**
County: **Franklin**
Operation Permit No.: **F047-15014-00005**
Permit Reviewer: **Michael Hirtler / EVP**

* As derived from original FESOP No. 047-5160-00005, issued October 27, 1997.

Emission Units (EU) 2.1, 2.2, and 2.3 (Asphalt & Asphalt Adhesive Storage Tanks)

Storage tank calculations based on AP-42, Section 7.1, summarized on page 5 of 14 of TSD Appendix A, and the material throughput limitations per Condition D.2.1:

Emission Unit*	Total HC	VOC 100%	PM** @ 22% VOC and 90% controlled
EU 2.1	5.63	5.63	0.12
EU 2.2	0.06	0.06	0.001
EU 2.3	0.13	0.13	0.003
Total	5.82	5.82	0.124

* Per Condition D.2.1, the total asphalt throughput to EU Nos. 2.1 and 3.1 (Tank Nos. 1 and 2) shall not exceed 28,502,400 gallons per twelve (12) consecutive month period. The emission rates shown in this table reflect total throughput to EU2.1 only. Also, the total adhesive throughput to each of EU2.2 and 2.3 (Tank Nos. 7 and 7A) shall not exceed 1,295,640 gallons per twelve consecutive month period.
** PM fraction estimate found in study report *Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading*, by David C. Trumbore, Environmental Progress (Vol. 18, No. 4), Winter 1999

For Carbon Monoxide (CO) and Hydrogen Sulfide (H_2S), emissions factors were provided by the source as found in the study, *Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading*, by David C. Trumbore, Environmental Progress (Vol. 18, No. 4), Winter 1999, and are calculated as follows:

Emission Factors (EF):

CO = 1.14 milligram (mg) per cubic meter (m^3) per part per million (ppm)
= 1.14 $mg/m^3/ppm$

H_2S = 1.39 $mg/m^3/ppm$

Emissions = EF x (ppm)x 0.028 m^3/c.f. x c.f./7.48 gallon x 1 lb/454,000 mg x (gallons per year)

For EU 2.1:*

CO emissions = 1.14 $mg/m^3/ppm$ x 15,000 ppm x 0.028 m^3/c.f. x c.f./7.48 gallon x 1 lb/454,000 mg x 28,502,400 gallons/year

= 4018.63 lbs/yr = 2.01 tons per year

H_2S emissions = 1.39 mg/m^3/ppm x 1,643.5 ppm x 0.028 m^3/c.f. x c.f./7.48 gallon x 1 lb/454,000 mg x 28,502,400 gallons/year

= 536.87 lbs/yr = 0.27 tons per year

SO_2 = 0.27 tons/yr x 64/34 = 0.51 tons/yr

* Note: Per Condition D.2.1, the total asphalt throughput to EU Nos. 2.1 and 3.1 (Tank Nos. 1 and 2) shall not exceed 28,502,400 gallons per twelve (12) consecutive month period. The emission rates shown reflect total throughput to EU2.1 only.

For EU 2.2 and EU 2.3:

CO emissions = 1.14 mg/m^3/ppm x 15,000 ppm x 0.028 m^3/c.f. x c.f./7.48 gallon x 1 lb/454,000 mg x 1,295,640 gallons/year

= 182 lbs/yr = 0.09 tons per year

H_2S emissions = 1.39 mg/m^3/ppm x 1,643.5 ppm x 0.028 m^3/c.f. x c.f./7.48 gallon x 1 lb/454,000 mg x 1,295,640 gallons/year

= 24 lbs/yr = 0.01 tons per year

SO_2 = 0.01 tons/yr x 64/34 = 0.02 tons/yr

Emission Unit *	CO	H_2S	SO_2
EU 2.1	2.01	0.27	0.51
EU 2.2	0.09	0.01	0.02
EU 2.3	0.09	0.01	0.02
Total	2.19	0.29	0.55

* Per Condition D.2.1, the total asphalt throughput to EU Nos. 2.1 and 3.1 (Tank Nos. 1 and 2) shall not exceed 28,502,400 gallons per twelve (12) consecutive month period. The emission rates shown in this table reflect total throughput to EU2.1 only. Also, the total adhesive throughput to each of EU2.2 and 2.3 (Tank Nos. 7 and 7A) shall not exceed 1,295,640 gallons per twelve consecutive month period.

Emission Unit 3.1 (Asphalt Storage Tank)

Emissions for EU 3.1 are the same as EU 2.1 (see page 5 of 14 of TSD Appendix A) and the material throughput limitations per Condition D.2.1, except PM emissions from EU3.1 are uncontrolled:

Emission Unit *	Total HC	VOC 100%	PM** @ 22% VOC uncontrolled
EU 3.1	5.63	5.63	1.24
Total	5.63	5.63	1.24

* Per Condition D.2.1, the total asphalt throughput to EU Nos. 2.1 and 3.1 (Tank Nos. 1 and 2) shall not exceed 28,502,400 gallons per twelve (12) consecutive month period. The emission rates shown in this table reflect total throughput to EU3.1 only.
** PM fraction estimate found in study report *Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading*, by David C. Trumbore, Environmental Progress (Vol. 18, No. 4), Winter 1999

For Carbon Monoxide (CO) and Hydrogen Sulfide (H_2S), emissions factors were provided by the source as found in the study, *Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading*, by David C. Trumbore, Environmental Progress (Vol. 18, No. 4), Winter 1999, and are calculated as follows:

CO emissions = 1.14 mg/m^3/ppm x 15,000 ppm x 0.028 m^3/c.f. x c.f./7.48 gallon x 1 lb/454,000 mg x 28,502,400 gallons/year

= 4018.63 lbs/yr = 2.01 tons per year

H_2S emissions = 1.39 mg/m^3/ppm x 1,643.5 ppm x 0.028 m^3/c.f. x c.f./7.48 gallon x 1 lb/454,000 mg x 28,502,400 gallons/year

= 536.87 lbs/yr = 0.27 tons per year

SO_2 = 0.27 tons/yr x 64/34 = 0.51 tons/yr

Emission Unit *	CO	H_2S	SO_2
EU 3.1	2.01	0.27	0.51
Total	2.01	0.27	0.51

* Per Condition D.2.1, the total asphalt throughput to EU Nos. 2.1 and 3.1 (Tank Nos. 1 and 2) shall not exceed 28,502,400 gallons per twelve (12) consecutive month period. The emission rates shown in this table reflect total throughput to EU3.1 only.

Emission Units 4.1 - 4.5, 4.7, 4.8, 4.10, and 4.11 (Mineral Storage Facilities Controlled by Baghouse)

Particulate matter (PM and PM_{10}) emission rates for facilities controlled by baghouse are shown on separate page 4 of 14 of this TSD Appendix A. The emission factors were taken from original FESOP application and reflect the applicant's control device vendor data as follows:

Emission Factors (EF):

PM/PM_{10} = 0.02 grains per dry standard cubic feet of exhaust flow (gr/dscf)
= 0.02 gr/dscf

For EU 4.1 - EU 4.5, EU 4.7, EU 4.8, EU 4.10, and EU 4.11, the respective control device exhaust fan flow rates are as follows:

Exhaust fan rates = 1070 + 535+ 1070 + 535 + 450 + 900 + 450 + 500 + 500
= 6010 c.f. per minute

Emission Unit 4.9 (Mineral Silos (Six) to One Stack, Uncontrolled)

The uncontrolled PM/PM_{10} emission factors for EU 4.9 were developed based on testing performed by Owens Corning at various locations. The testing utilized standard test methods and were correlated with the quantity of product produced. The emissions are calculated as follows:

Emission Factors (EF):

PM/PM_{10} = 0.0017 pounds per ton of product (lb/ton)

Emissions = EF x tons of product per year ÷ 2000 pounds per ton

PM/PM_{10} emissions = 0.0017 lb/ton x 454,200 tons per year ÷ 2000 pounds per ton
= 0.39 tons per year

Emission Unit 5.1 (Asphalt Filler Mixer)

Mixer calculations are based on AP-42, Section 7.1, summarized on page 5 of 14 of TSD Appendix A, and the material throughput limitations per Condition D.5.1:

Emission Unit *	Total HC	VOC 100%	PM** @ 22% VOC uncontrolled
EU 5.1	4.31	4.31	0.95

* Per Condition D.5.1, the total asphalt throughput to EU 5.1 (asphalt filler mixer) shall not exceed 28,502,400 gallons per twelve (12) consecutive month period.
** PM fraction estimate found in study report *Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading*, by David C. Trumbore, Environmental Progress (Vol. 18, No. 4), Winter 1999

For Carbon Monoxide (CO) and Hydrogen Sulfide (H_2S), emissions factors were provided by the source as found in the study, *Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading*, by David C. Trumbore, Environmental Progress (Vol. 18, No. 4), Winter 1999, and are calculated as follows:

Emission Factors (EF):
CO = 1.14 $mg/m^3/ppm$
H_2S = 1.39 $mg/m^3/ppm$

Emissions = EF x (ppm)x 0.028 m^3/c.f. x c.f./7.48 gallon x 1 lb/454,000 mg x (gallons per year)

For EU 5.1:
CO emissions = 1.14 $mg/m^3/ppm$ x 3,640 ppm x 0.028 m^3/c.f. x c.f./7.48 gallon x 1 lb/454,000 mg x 28,502,400 gallons/year

= 975 lbs/yr = 0.49 tons per year

H_2S emissions = 1.39 $mg/m^3/ppm$ x 649.1 ppm x 0.028 m^3/c.f. x c.f./7.48 gallon x 1 lb/454,000 mg x 28,502,400 gallons/year

= 212 lbs/yr = 0.11 tons per year

SO_2 = 0.11 tons/yr x 64/34 = 0.21 tons/yr

Emission Unit *	CO	H_2S	SO_2
EU 5.1	0.49	0.11	0.21

* Per Condition D.5.1, the total asphalt throughput to EU 5.1 (asphalt filler mixer) shall not exceed 28,502,400 gallons per twelve (12) consecutive month period.

Emission Unit 6.1 (Asphalt Coater/Surge Tank)

The emission factors for the coater (EU 6.1) were initially developed based on testing performed at Owens Corning using standard test methods and were correlated with the quantity of product produced. Pursuant to Condition D.6.2 of the original FESOP, compliance testing was successfully performed during October 2000. Therefore, using the original FESOP emission factors, the emissions are calculated as follows:

Emission Factors (EF):

PM/PM_{10}	= 0.071 pounds per ton of product
VOC	= 0.091 pounds per ton of product
CO	= 0.005 pounds per ton of product
SO_2	= 0.0025 pounds per ton of product
H_2S	= 0.002415 pounds per ton of product

Emissions = EF x tons of product per year ÷ 2000 pounds per ton

PM/PM_{10} emissions = 0.071 lb/ton x 454,200 tons per year ÷ 2000 pounds per ton
= 16.12 tons per year

Significant permit revision No. 047-11198, issued January 10, 2000, approved the installation of a fiber bed filter for PM/PM10 emissions control, with an efficiency of 90%. Therefore, the controlled PM/PM10 emission are:

PM/PM_{10} emissions = 16.12 tons per year * (1-control efficiency) = 1.61 tons per year

VOC emissions = 0.091 lb/ton x 454,200 tons per year ÷ 2000 lb/ton
= 20.67 tons per year

CO emissions = 0.005 lb/ton x 454,200 tons per year ÷ 2000 lb/ton
= 1.14 tons per year

SO_2 emissions = 0.0025 lb/ton x 454,200 tons per year ÷ 2000 lb/ton
= 0.57 tons per year

H_2S emissions = 0.002415 lb/ton x 454,200 tons per year ÷ 2000 lb/ton
= 0.55 tons per year

H_2S as SO_2 = 0.55 tons/yr x 64/34 = 1.04 tons/yr

Total SO_2 emissions = 1.04 + 0.57 = 1.61 tons per year

Emission Unit 7.1 (Surfacing Material Applicator)

Particulate matter (PM and PM_{10}) emission rate for this facility controlled by baghouse are shown on separate page 4 of 14 of this TSD Appendix A. The emission factors were taken from original FESOP application and reflect the applicant's control device vendor data as follows:

Emission Factors (EF):

PM/PM_{10}	= 0.02 grains per dry standard cubic feet of exhaust flow (gr/dscf)
	= 0.02 gr/dscf

For EU 7.1, the control device exhaust fan flow rate is as follows:

Exhaust fan rate = 7, 850 c.f. per minute

The VOC emission factor for EU 7.1 was developed based on testing performed by Owens Corning at various locations using standard test methods and correlated with the quantity of product produced. The emissions are calculated as follows:

Emission Factors (EF):

VOC = 0.003 pounds per ton of product

VOC emissions = 0.003 lb/ton x 454,200 tons per year ÷ 2000 lb/ton
= 0.68 tons per year

Emission Unit 7.2 (Cooling Section)

The VOC and PM/PM_{10} emission factors for EU 7.2 were initially developed based on testing performed at Owens Corning using standard test methods and were correlated with the quantity of product produced. Pursuant to Condition D.6.2 of the original FESOP, compliance testing was successfully performed during October 2000. Therefore, using the original FESOP emission factors, the emissions are calculated as follows:

Emission Factors (EF):
PM/PM_{10} = 0.270 pounds per ton of product
VOC = 0.035 pounds per ton of product

Emissions = EF x tons of product per year ÷ 2000 pounds per ton

PM/PM_{10} emissions = 0.270 lb/ton x 454,200 tons per year ÷ 2000 pounds per ton
= 61.32 tons per year

VOC emissions = 0.035 lb/ton x 454,200 tons per year ÷ 2000 lb/ton
= 7.95 tons per year

Process Fugitive Emissions (ID#92)

The process fugitives are the total of the VOC emissions from the valves, flanges, and pump seals; the hot oil loss; the two (2) Safety-Kleen type cold cleaning degreasers. The emission factors for these activities are taken from the “Infield Quantification of Fugitive Emissions” by Paul Martine of API; engineering judgement based on mass-balance; and AP-42, Section 4.6 (dated January 1995), as respectively cited in the original FESOP application.

Total Emission Rate:

VOC = valves/flanges/pump seals + hot oil loss + cold cleaners
= 0.01 tons/year + 1.37 tons/year + 0.33 tons/year * 2 degreasers
= 2.04 tons per year

Ventilators (ID# 93)

The VOC and PM/PM_{10} emission factors from ventilators (i.e., building roof monitor ventilation extending the length of the production building) were initially developed based on testing performed at Owens Corning using standard test methods and were correlated with the quantity of product produced. Pursuant to Condition D.6.2 of the original FESOP, compliance testing was successfully performed during October 2000 using opacity as a surrogate test for PM/PM10. Therefore, using the original FESOP emission factors, and subtracting the emissions from the asphalt filler mixer (EU 5.1) which are captured by these factors, to avoid double-counting, the emissions are calculated as follows:

Emission Factors (EF):

PM/PM_{10} = 0.019 pounds per ton of product

VOC = 0.1055 pounds per ton of product

Emissions = EF x tons of product per year ÷ 2000 pounds per ton

Total Ventilator emissions including EU 5.1

PM/PM_{10} emissions = 0.019 lb/ton x 454,200 tons per year ÷ 2000 pounds per ton
= 4.31 tons per year

VOC emissions = 0.1055 lb/ton x 454,200 tons per year ÷ 2000 lb/ton
= 23.96 tons per year

Ventilator emissions = Total emissions x safety factor - EU 5.1 emissions

PM/PM_{10} emissions = (4.31 tons/year x 2.1) - 0.95 tons/yr
= 8.10 tons per year

VOC emissions = (23.96 tons/year x 1) - 1.87 tons/yr
= 22.09 tons per year

Appendix A: Emission Calculations *
Potential HAP Emissions (Tons per Year)

Company Name: Owens Corning
Address, City IN Zip: 128 W. Eighth Street, Brookville, IN 47012
FESOP Renewal : F047-15014-00005
Reviewer: Michael Hirtler
Date: June 20, 2002

Unit ID	S/V ID	Pollutant	Cas #	Limited HAP	Max PTE	Limit PTE	Max HAP

Appendix A: Emission Calculations *
Potential HAP Emissions (Tons per Year)

Company Name: Owens Corning
Address, City IN Zip: 128 W. Eighth Street, Brookville, IN 47012
FESOP Renewal : F047-15014-00005
Reviewer: Michael Hirtler
Date: June 20, 2002

Unit ID	S/V ID	Pollutant	Cas #	Limited HAP	Max PTE	Limit PTE	Max HAP
EU 4.9	20	Lead Compounds		0.0003	0.39	0.39	0.0003
EU 4.9	20	Arsenic Compounds		0.0001	0.39	0.39	0.0001
EU 4.9	20	Chromium Compounds		0.0022	0.39	0.39	0.0022
EU 4.9	20	Cobalt Compounds		0.0003	0.39	0.39	0.0003
EU 4.9	20	Manganese Compounds		0.0018	0.39	0.39	0.0018
EU 4.9	20	Selenium Compounds		0.0001	0.39	0.39	0.0001
				0.0048			0.0048
EU 6.1	36	HCl	7647010	0.0689	20.67	20.67	0.0689
EU 6.1	36	Formaldehyde	50000	0.0223	20.67	20.67	0.0223
EU 6.1	36	Xylene	1330207	0.1362	20.67	20.67	0.1362
EU 6.1	36	Benzene	71432	0.1362	20.67	20.67	0.1362
EU 6.1	36	Toluene	108883	0.2376	20.67	20.67	0.2376
EU 6.1	36	Ethylbenzene	100414	0.0105	20.67	20.67	0.0105
EU 6.1	36	1,1,1 TCE		0.0689	20.67	20.67	0.0689
EU 6.1	36	POM		0.0146	20.67	20.67	0.0146
EU 6.1	36	Lead Compounds		0.0005	16.12	16.12	0.0005
EU 6.1	36	Chromium Compounds		0.0005	16.12	16.12	0.0005
EU 6.1	36	Cobalt Compounds		0.0005	16.12	16.12	0.0005
EU 6.1	36	Manganese Compounds		0.0005	16.12	16.12	0.0005
EU 6.1	36	Nickel Compounds		0.0007	16.12	16.12	0.0007
				0.6979			0.6979
EU 7.2	41,42	Formaldehyde	50000	0.0355	7.95	7.95	0.0355
EU 7.2	41,42	Xylene	1330207	0.0647	7.95	7.95	0.0647
EU 7.2	41,42	Benzene	71432	0.053	7.95	7.95	0.0530
EU 7.2	41,42	Toluene	108883	0.0877	7.95	7.95	0.0877
EU 7.2	41,42	Ethylbenzene	100414	0.0468	7.95	7.95	0.0468
EU 7.2	41,42	1,1,1 TCE		0.1251	7.95	7.95	0.1251
EU 7.2	41,42	POM		0.0093	7.95	7.95	0.0093
EU 7.2	41,42	Lead Compounds		0.0075	61.32	61.32	0.0075
EU 7.2	41,42	Arsenic Compounds		0.0007	61.32	61.32	0.0007
EU 7.2	41,42	Chromium Compounds		0.0679	61.32	61.32	0.0679
EU 7.2	41,42	Cobalt Compounds		0.0059	61.32	61.32	0.0059
EU 7.2	41,42	Manganese Compounds		0.0727	61.32	61.32	0.0727
EU 7.2	41,42	Selenium Compounds		0.0007	61.32	61.32	0.0007
				0.5775			0.5775

Appendix A: Emission Calculations *
Potential HAP Emissions (Tons per Year)

Company Name: Owens Corning
Address, City IN Zip: 128 W. Eighth Street, Brookville, IN 47012
FESOP Renewal : F047-15014-00005
Reviewer: Michael Hirtler
Date: June 20, 2002

Unit ID	S/V ID	Pollutant	Cas #	Limited HAP	Max PTE	Limit PTE	Max HAP
EU 92		POM		1.37	1.38	1.38	1.37
EU 93		POM		0.0238	22.09	22.09	0.0238
EU 93		Lead Compounds		0.0602	8.10	8.10	0.0602
EU 93		Arsenic Compounds		0.0023	8.10	8.10	0.0023
EU 93		Chromium Compounds		0.042	8.10	8.10	0.0420
EU 93		Cobalt Compounds		0.0142	8.10	8.10	0.0142
EU 93		Manganese Compounds		0.4876	8.10	8.10	0.4876
EU 93		Selenium Compounds		0.0024	8.10	8.10	0.0024
EU 93		MEK	78933	3.4	22	22	3.4
				4.0325			4.0325
		HCl	7647010	0.0689			0.0689
		Formaldehyde	50000	0.0578			0.0578
		Xylene	1330207	0.2009			0.2009
		Benzene	71432	0.1892			0.1892
		Toluene	108883	0.3253			0.3253
		Ethylbenzene	100414	0.0573			0.0573
		1,1,1 TCE		0.1940			0.1940
		POM		1.4177			1.4177
		Lead Compounds		0.0685			0.0685
		Arsenic Compounds		0.0031			0.0031
		Chromium Compounds		0.1126			0.1126
		Cobalt Compounds		0.0209			0.0209
		Manganese Compounds		0.5626			0.5626
		Nickel Compounds		0.0007			0.0007
		Selenium Compounds		0.0032			0.0032
		MEK		3.4			3.4
		TOTAL HAPS		6.6827			6.6827

* As taken from original FESOP No. 047-5160. Methodology based on organic and non-organic HAP analysis provided by Owens-Corning based on a comprehensive sampling program conducted at several other Owens-Corning facilites. Potential HAP emissions from asphalt storage tanks are negligible, based on the findings of a joint sampling program between USEPA and the Asphalt Roofing Manufacturers Association undertaken during 1999 using FTIR. Limited emissions presented by the source were ratioed by the potential/limited pollutant (PM or VOC) emission rate for that emission unit to determine maximum potential to emit.